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**RED**  
**BOOK**



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# 50<sup>th</sup> ANNIVERSARY

NUMBER  
87



## RED BOOK

ESTABLISHED  
1887

**W. D. ALLEN  
MANUFACTURING CO.**

ESTABLISHED  
1887

56 West Lake Street, Chicago, Illinois.

ALL PHONES RANDOLPH 8181



3-1-39

# W. D. ALLEN MANUFACTURING CO.

ESTABLISHED 1887

## MANUFACTURERS AND DISTRIBUTORS



A View of the General Office Building and Warehouse located at 566-570 West Lake Street, Chicago, Illinois. The seven floors and basement are occupied exclusively by the W. D. Allen Manufacturing Company.



This building is the Manufacturing Division and is exclusively occupied by the W. D. Allen Manufacturing Company, located at 5650 West Roosevelt Road, Chicago, Illinois



*Please Insert This Discount Sheet Inside The Cover Of  
Allen's Red Book No. 87.*

No. 874

*3/31/39*  
APRIL 1939

# DEALER DISCOUNTS

APPLYING TO ALLEN'S RED BOOK No. 87

Your CONFIDENTIAL DEALERS' COSTS in this discount sheet apply to and supplement the prices shown in the No. 87 ALLEN'S RED BOOK. Please destroy all previous Discount Sheets and Insert This Issue In Your Catalog.

The Net Prices or Discounts printed in ALLEN'S RED BOOK are in many cases according to the recommended schedules of the various manufacturers for the industrial market. These prices are NOT intended to be used as your resale price for your 'over-the-counter' trade.

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Printed on the upper inside corner of almost every page you will find the word 'SHEET'. This is your confidential cue that in this Discount Sheet applying to the ALLEN'S RED BOOK you will find lower prices or discounts applying usually to all the items on the page or, if not, on certain items where a preferential is possible. To find your lowest cost, refer to the Discount Sheet, and indexed on the proper page you will find your dealers' net price, discount from the list, or your preferential dealers' discount.

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# W. D. ALLEN

ESTABLISHED 1887. MANUFACTURERS AND DISTRIBUTORS

## MANUFACTURING COMPANY

566-568-570 West Lake Street, Chicago, Illinois



# W. D. ALLEN MANUFACTURING CO.

ESTABLISHED 1887

## MANUFACTURERS AND DISTRIBUTORS



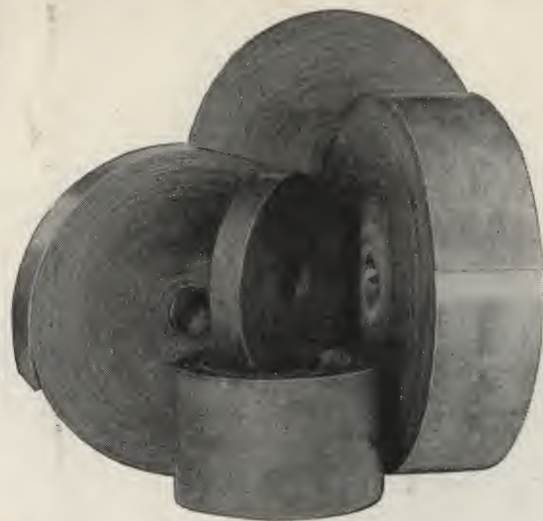
A View of the General Office Building and Warehouse located at 566-570 West Lake Street, Chicago, Illinois. The seven floors and basement are occupied exclusively by the W. D. Allen Manufacturing Company.



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# CONFIDENTIAL DEALERS PRICES



Page 5-8 **SPECIAL! Agricultural Leather Belting.** Not Shown in Red Book. Oil Dressed. Waterproof cemented Laps. Used extensively for numerous purposes around the farm, such as on electric water pumps, cream separators, sawing, etc.

Size, Inches	★NET 100 FEET			
	Light Single	Medium Single	Light Double	
1	\$7.26	\$8.27	\$14.40	
1-1/4	\$9.08	\$10.34	\$18.00	
1-1/2	\$10.89	\$12.41	\$21.60	
2	\$14.52	\$16.56	\$28.80	
2-1/2	\$18.15	\$20.69	\$36.00	
3	\$21.78	\$24.81	\$43.20	
3-1/2	\$25.41	\$28.96	\$50.40	
4	\$29.04	\$33.11	\$57.60	
5	\$36.30	\$41.38	\$72.00	
6	\$43.56	\$49.65	\$86.40	
7	\$50.82	\$57.89	\$100.80	
8	\$58.08	\$66.16	\$115.20	
9	\$65.34	\$74.43	\$129.60	
10	\$72.60	\$82.70	\$144.00	

Balance of Page . . . . . Prices As Shown

9 Fig. 3232 Mohawk Solid Round Leather Belting

★NET 100 FEET			
Size, Inches	1/4	5/16	3/8
100 Feet or More	\$7.45	\$12.15	\$18.00
Less than 100 Feet	\$9.45	\$14.40	\$19.80

Fig. 591 Ace Solid Round Leather Belting

★NET 100 FEET				
Size, Inches	1/8	1/16	1/4	5/16
100 Feet or More	\$3.15	\$3.30	\$6.30	\$9.75
Less than 100 Feet	\$3.50	\$3.60	\$7.00	\$10.75



Fig. 3288 Blue Label Solid Round Leather Belting

★NET 100 FEET			
Size, Inches	1/4	5/16	3/8
100 Feet or More	\$3.95	\$5.90	\$9.50
Less than 100 Feet	\$5.00	\$7.50	\$12.00

Page 10 Fig. 392 Rawhide Round Belting . . . . . DEDUCT 10%  
 Fig. 592 Patent Round Belting . . . . . DEDUCT 10%  
 Fig. 394 Rawhide Round Twist Belting . . . . . DEDUCT 10%  
 Fig. 2851 Oak Tanned Round Twist Belting . . . . . DEDUCT 10%  
 Fig. 579 'V' Leather Belting  
 1/2x1/2x11/2 Inch . . . . . ★NET 100 FEET, \$11.00  
 3/4x1/2x11/2 Inch . . . . . ★NET 100 FEET, \$13.50  
 Balance of Page . . . . . Prices As Shown



11, 12, 13, 14, 15, 16 and 19B. Rubber Belting. Net Prices Are All Withdrawn. REFER TO LIST PRICES ON PAGE 11 ALLEN'S RED BOOK.

	1 to 49 Feet	50 to 249 Feet	250 Foot Rolls
12 Rubber Belt			
13 Lexington Red	41-20%	41-20-10%	41-20-10-10%
13 Three Star Friction	37-20%	37-20-10%	37-20-10-10%
14 High Speed Raw Edge	23-20%	23-20-10%	23-20-10-10%
15 Blue (United States)	47-20%	47-20-10%	47-20-10-10%
15 Yale Smooth	50-20%	50-20-10%	50-20-10-10%
16 Elevator Belting	50-20%	50-20-10%	50-20-10-10%
19B Agricultural 28 Ounce	70-20%	70-20-10%	70-20-10-10%
19B Agricultural 32 Ounce	69-20%	69-20-10%	69-20-10-10%

16 Fig. 429 Elevator Rubber Belting Refer Back to Page 11 for Discounts and to Red Book Page 11 for List Prices.

Fig. 4425 Road Building Conveyor Belts . . . . . DEDUCT 10%

Fig. 4426 Portable Loader Conveyor Belts, 4 Ply

12 Inch. 1/16 Inch Top Cover . . . . . LIST FOOT, \$1.38

12 Inch. 1/8 Inch Top Cover . . . . . LIST FOOT, \$1.37

16 Inch. 1/16 Inch Top Cover . . . . . LIST FOOT, \$1.84

16 Inch. 1/8 Inch Top Cover . . . . . LIST FOOT, \$2.09

Other Sizes, Same as Allen's Red Book.

1 to 49 Feet . . . . . DEDUCT 10%

50 to 99 Feet . . . . . DEDUCT 10-10%

100 Feet or More . . . . . DEDUCT 10-10-10%

17 Fig. 3385 Conveyor Belts

Width, Inches 6 10 12 14 16

3 PLY—LIST FOOT

1/32 Top Cover \$0.56 \$0.94 \$1.12 \$1.31 \$1.50

1/16 Top Cover \$0.61 \$1.01 \$1.22 \$1.42 \$1.62

3/32 Top Cover \$0.65 \$1.09 \$1.31 \$1.53 \$1.74

1/8 Top Cover \$0.70 \$1.17 \$1.40 \$1.63 \$1.87

4 PLY—LIST FOOT

1/32 Top Cover \$0.65 \$1.08 \$1.29 \$1.51 \$1.72

1/16 Top Cover \$0.69 \$1.15 \$1.38 \$1.61 \$1.84

3/32 Top Cover \$0.74 \$1.23 \$1.47 \$1.72 \$1.97

1/8 Top Cover \$0.78 \$1.31 \$1.57 \$1.83 \$2.09

5 PLY—LIST FOOT

1/16 Top Cover \$0.83 \$1.38 \$1.66 \$1.94 \$2.21

3/32 Top Cover \$0.88 \$1.46 \$1.75 \$2.04 \$2.34

1/8 Top Cover \$0.92 \$1.54 \$1.84 \$2.15 \$2.46

6 PLY—LIST FOOT

1/16 Top Cover \$0.97 \$1.61 \$1.94 \$2.26 \$2.58

3/32 Top Cover \$1.01 \$1.69 \$2.03 \$2.37 \$2.70

1/8 Top Cover \$1.06 \$1.77 \$2.12 \$2.47 \$2.83

For 18 to 48 Inch Widths, Prices As Shown in Allen's Red Book.

1 to 49 Feet . . . . . DEDUCT 10%

50 to 99 Feet . . . . . DEDUCT 10-10%

100 Feet or More . . . . . DEDUCT 10-10-10%

18 Fig. 3226 "R. F. & C." Belting

List Prices Are Withdrawn. Use Fig. 417 Solid Woven White Cotton Belting List Prices On Page 19.

1 to 49 Feet . . . . . LIST LESS 18-10%

50 to 249 Feet . . . . . LIST LESS 18-10%

250 Foot Rolls . . . . . LIST LESS 18-10-10%

19 Fig. 2855 Genuine Balata Belting

1 to 49 Feet . . . . . LIST LESS 50-10%

50 to 249 Feet . . . . . LIST LESS 50-10-10%

250 Foot Rolls, One Size . . . . . LIST LESS 50-10-10-10%

Fig. 417 Solid Woven White Cotton Belting

1 to 49 Feet . . . . . LIST LESS 65-10%

50 to 249 Feet . . . . . LIST LESS 65-10-10%

250 Foot Rolls, One Size . . . . . LIST LESS 65-10-10-10%

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



Page 19A Fig. 3240 Harvest King Endless Rubber Belt—32 Ounce  
The actual length is three feet less than the labeled length

50 feet, 6 inch, 4 ply.....	NET EACH, \$12.96
60 feet, 6 inch, 4 ply.....	NET EACH, \$15.47
75 feet, 6 inch, 4 ply.....	NET EACH, \$19.09
100 feet, 6 inch, 4 ply.....	NET EACH, \$25.21
50 feet, 7 inch, 4 ply.....	NET EACH, \$15.17
75 feet, 7 inch, 4 ply.....	NET EACH, \$22.40
100 feet, 7 inch, 4 ply.....	NET EACH, \$29.53
125 feet, 7 inch, 4 ply.....	NET EACH, \$36.76
125 feet, 7 inch, 5 ply.....	NET EACH, \$45.00
50 feet, 8 inch, 4 ply.....	NET EACH, \$16.37
75 feet, 8 inch, 4 ply.....	NET EACH, \$24.21
100 feet, 8 inch, 4 ply.....	NET EACH, \$31.84
125 feet, 8 inch, 4 ply.....	NET EACH, \$39.58
150 feet, 8 inch, 4 ply.....	NET EACH, \$47.31
125 feet, 8 inch, 5 ply.....	NET EACH, \$49.62

19B Fig. 4800 Harvester Webbing..... DEDUCT 25%  
Fig. 4801 Apron Binder Webbing..... DEDUCT 25%  
Cord Endless Rubber Belts..... Prices on Request



Page 19B Fig. 4476 Agricultural Red Friction Surface  
Con. RUBBER BELTING



20 Western Chief Stitched Canvas Belting  
1 to 49 Feet..... LIST LESS 60-20%  
50 to 249 Feet..... LIST LESS 60-20-10%  
250 Foot Rolls..... LIST LESS 60-20-10-10%

21A Western Chief ENDLESS Stitched Canvas Belts

50 feet, 5 inch, 4 ply.....	NET EACH, \$8.91
75 feet, 5 inch, 4 ply.....	NET EACH, \$13.05
100 feet, 5 inch, 4 ply.....	NET EACH, \$17.28
50 feet, 6 inch, 4 ply.....	NET EACH, \$10.35
60 feet, 6 inch, 4 ply.....	NET EACH, \$12.24
75 feet, 6 inch, 4 ply.....	NET EACH, \$15.21
100 feet, 6 inch, 4 ply.....	NET EACH, \$20.07
125 feet, 6 inch, 4 ply.....	NET EACH, \$24.93
50 feet, 7 inch, 4 ply.....	NET EACH, \$12.06
75 feet, 7 inch, 4 ply.....	NET EACH, \$17.73
100 feet, 7 inch, 4 ply.....	NET EACH, \$23.40
125 feet, 7 inch, 4 ply.....	NET EACH, \$29.07
150 feet, 7 inch, 4 ply.....	NET EACH, \$34.74
50 feet, 8 inch, 4 ply.....	NET EACH, \$13.77
75 feet, 8 inch, 4 ply.....	NET EACH, \$20.25
100 feet, 8 inch, 4 ply.....	NET EACH, \$26.73
125 feet, 8 inch, 4 ply.....	NET EACH, \$33.21
150 feet, 8 inch, 4 ply.....	NET EACH, \$39.69
150 feet, 9 inch, 4 ply.....	NET EACH, \$44.64
125 feet, 7 inch, 5 ply.....	NET EACH, \$36.45
150 feet, 7 inch, 5 ply.....	NET EACH, \$43.56
125 feet, 8 inch, 5 ply.....	NET EACH, \$41.49
150 feet, 8 inch, 5 ply.....	NET EACH, \$49.59
160 feet, 8 inch, 5 ply.....	NET EACH, \$52.83
150 feet, 9 inch, 5 ply.....	NET EACH, \$55.98
160 feet, 9 inch, 5 ply.....	NET EACH, \$59.58
150 feet, 8 inch, 6 ply.....	NET EACH, \$59.48
160 feet, 8 inch, 6 ply.....	NET EACH, \$63.36
150 feet, 9 inch, 6 ply.....	NET EACH, \$66.96
160 feet, 9 inch, 6 ply.....	NET EACH, \$71.28

Size Inch	STRAIGHT ROLL		
	1 to 49 Feet	50 to 249 Feet	250 Foot Rolls
28 OUNCE—3 PLY—★NET 100 FEET			
1	\$4.80	\$4.32	\$3.89
1-1/4	\$6.24	\$5.62	\$5.06
1-1/2	\$7.44	\$6.70	\$6.03
2	\$9.36	\$8.42	\$7.58
2-1/2	\$11.52	\$10.37	\$9.33
3	\$13.20	\$11.88	\$10.69
3-1/2	\$15.60	\$14.04	\$12.64
4	\$16.80	\$15.12	\$13.61
28 OUNCE—4 PLY—★NET 100 FEET			
1-1/2	\$8.64	\$7.78	\$7.00
2	\$11.04	\$9.94	\$8.95
2-1/2	\$13.44	\$12.10	\$10.89
3	\$15.60	\$14.04	\$12.64
3-1/2	\$18.24	\$16.42	\$14.78
4	\$19.68	\$17.71	\$15.94
4-1/2	\$22.08	\$19.87	\$17.88
5	\$24.48	\$22.03	\$19.83
6	\$29.28	\$26.35	\$23.72
7	\$34.32	\$30.89	\$27.80
8	\$36.96	\$33.26	\$29.93
9	\$41.52	\$37.37	\$33.63
32 OUNCE—3 PLY—★NET 100 FEET			
1	\$4.96	\$4.46	\$4.01
1-1/4	\$6.45	\$5.81	\$5.23
1-1/2	\$7.69	\$6.92	\$6.23
2	\$9.67	\$8.71	\$7.84
2-1/2	\$11.90	\$10.71	\$9.64
3	\$13.64	\$12.28	\$11.05
3-1/2	\$16.12	\$14.51	\$13.06
4	\$17.36	\$15.62	\$14.07
32 OUNCE—4 PLY—★NET 100 FEET			
1-1/2	\$8.93	\$8.04	\$7.24
2	\$11.41	\$10.27	\$9.24
2-1/2	\$13.89	\$12.50	\$11.25
3	\$16.12	\$14.51	\$13.06
3-1/2	\$18.85	\$16.97	\$15.27
4	\$20.34	\$18.31	\$16.48
4-1/2	\$22.82	\$20.54	\$18.49
5	\$25.30	\$22.77	\$20.50
6	\$30.26	\$27.23	\$24.51
7	\$35.46	\$31.91	\$28.72
8	\$38.19	\$34.37	\$30.93
9	\$42.90	\$38.61	\$34.75

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

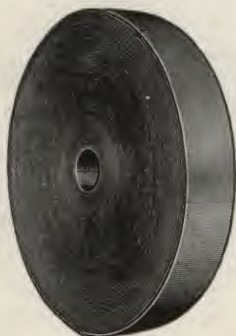


Page 21 Fig. 2891 Black Pilot Black Stitched Canvas Belting  
 1 to 49 Feet.....LIST LESS 60-20%  
 50 to 249 Feet.....LIST LESS 60-20-10%  
 250 Foot Rolls.....LIST LESS 60-20-10-10%



## 21B Black Pilot Black Stitched ENDLESS Canvas Belts

50 feet, 5 inch, 4 ply.....	NET EACH, \$8.91
75 feet, 5 inch, 4 ply.....	NET EACH, \$13.05
100 feet, 5 inch, 4 ply.....	NET EACH, \$17.28
50 feet, 6 inch, 4 ply.....	NET EACH, \$10.35
60 feet, 6 inch, 4 ply.....	NET EACH, \$12.24
75 feet, 6 inch, 4 ply.....	NET EACH, \$15.21
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50 feet, 7 inch, 4 ply.....	NET EACH, \$12.06
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125 feet, 7 inch, 5 ply.....	NET EACH, \$36.45
150 feet, 7 inch, 5 ply.....	NET EACH, \$43.56
125 feet, 8 inch, 5 ply.....	NET EACH, \$41.49
150 feet, 8 inch, 5 ply.....	NET EACH, \$49.59
160 feet, 8 inch, 5 ply.....	NET EACH, \$52.83
150 feet, 9 inch, 5 ply.....	NET EACH, \$55.98
160 feet, 9 inch, 5 ply.....	NET EACH, \$59.58
150 feet, 8 inch, 6 ply.....	NET EACH, \$59.49
160 feet, 8 inch, 6 ply.....	NET EACH, \$63.36
150 feet, 9 inch, 6 ply.....	NET EACH, \$66.96
160 feet, 9 inch, 6 ply.....	NET EACH, \$71.28



22 Fig. 2488 Mikado Fabric Belting.....DEDUCT 10-10%  
 Fig. 2499 Black Knight Fabric Belting.....DEDUCT 10-10%



**SPECIAL! 'Speeder' Endless Hammermill Canvas Belts.** Not shown in Allen's Red Book. The duck used is of a special weave which eliminates excessive stretch. The compound impregnation keeps the belt pliable under all weather conditions and gives it an adhesive surface which eliminates slippage and wear to a minimum. These belts will operate successfully at high speeds over small pulleys, NO MORE SPEED RESTRICTIONS. Other sizes and plies can be furnished.—Send your order, or prices sent on request.

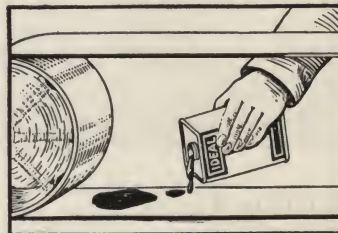
50 Feet, 6 Inch, 4 Ply....	★NET EACH, \$16.40
60 Feet, 6 Inch, 4 Ply....	★NET EACH, \$19.40
75 Feet, 6 Inch, 4 Ply....	★NET EACH, \$24.10
50 Feet, 7 Inch, 4 Ply....	★NET EACH, \$19.10
60 Feet, 7 Inch, 4 Ply....	★NET EACH, \$22.70
75 Feet, 7 Inch, 4 Ply....	★NET EACH, \$28.10

Page 23 Fig. 378 Pease Paste Belt Dressing.....Prices As Shown  
 Fig. 300 Ajax Belt Oil.....★NET GALLON, \$1.35  
 Fig. 2889 Cling Surface Belt Preservative  
 1 Gallon Can, 1 to 5 Cans.....★NET GALLON, \$3.50  
 1 Gallon Can, 6 to a Case.....★NET GALLON, \$3.00  
 3 Gallon Drum.....★NET GALLON, \$2.90  
 6 Gallon Drum.....★NET GALLON, \$2.75



## Fig. 2359 Magic Bar Belt Dressing

1 to 11.....	★NET BAR, \$0.35
1 Dozen or More.....	★NET BAR, \$0.25
3 Dozen or More.....	★NET BAR, \$0.22
6 Dozen or More.....	★NET BAR, \$0.20
12 Dozen or More.....	★NET BAR, \$0.18



## Fig. 2360 Ideal Semi-Liquid Belt Dressing

1 Pint Can.....	★NET EACH, \$0.25
1 Quart Can.....	★NET EACH, \$0.40
1 Gallon Can.....	★NET EACH, \$1.60

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

Page

- 24 Fig. 2948 Handy Repair Bundle of Rawhide Lacing  
 ★NET DOZEN BUNDLES, \$1.80  
 Fig. 402 Rogers Belt Punch.....★NET EACH, \$0.60  
 Balance of Page.....Prices As Shown



- 25 Fig. 936 Ajax Cut Belt Lacing  
 Width, Inches..... $\frac{1}{4}$   $\frac{5}{16}$   $\frac{3}{8}$   $\frac{7}{16}$   
 ★NET 100 FEET.....\$1.37 \$1.62 \$2.03 \$2.48  
 Width, Inches..... $\frac{1}{2}$   $\frac{5}{8}$   $\frac{3}{4}$   
 ★NET 100 FEET.....\$3.02 \$3.56 \$4.10

Fig. 376 Ajax Lace Leather in Sides  
 ★NET SQUARE FOOT, \$0.54

- Fig. 936B Indian Tanned Cut Belt Lacing  
 Width, Inches..... $\frac{1}{4}$   $\frac{5}{16}$   $\frac{3}{8}$   $\frac{7}{16}$   
 ★NET 100 FEET.....\$1.37 \$1.62 \$2.03 \$2.48  
 Width, Inches..... $\frac{1}{2}$   $\frac{5}{8}$   $\frac{3}{4}$   
 ★NET 100 FEET.....\$3.02 \$3.56 \$4.10

- Fig. 4293 Indian Tan Cut Belt Lacing  
 Width, Inches..... $\frac{1}{4}$   $\frac{5}{16}$   $\frac{3}{8}$   $\frac{7}{16}$   
 ★NET 100 FEET.....\$1.53 \$1.85 \$2.25 \$2.75  
 Width, Inches..... $\frac{1}{2}$   $\frac{5}{8}$   $\frac{3}{4}$   
 ★NET 100 FEET.....\$3.33 \$3.96 \$4.55

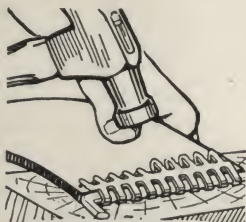
Fig. 376B Indian Tanned Lace Leather in Sides  
 ★NET SQUARE FOOT, \$0.54

- 26 Entire Page.....DEDUCT 10%

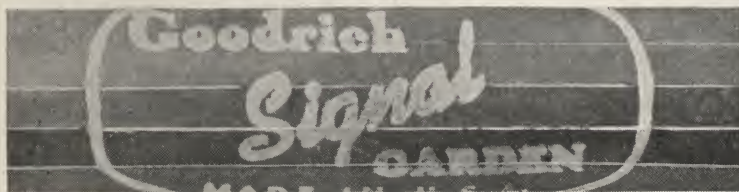


- 27 Fig. 294 'Alenco' Wire Belt Lacing  
 Size 0.....★NET BOX, \$0.25  
 Size 1.....★NET BOX, \$0.25  
 Size 2.....★NET BOX, \$0.35  
 Size 3.....★NET BOX, \$0.35

Figs. 383, 384 and 385 Bristol Steel Belt Lacing  
 LIST LESS 50%



- 28 Alligator Steel Belt Lacing—Entire Page  
 Up to \$49.99 List.....LIST LESS 65%  
 \$50.00 to \$99.99 List.....LIST LESS 67%  
 \$100.00 List or More.....LIST LESS 69%  
 Cutter.....LIST LESS 15%



## 33 GARDEN HOSE

Size Inches	Length Feet	★NET LENGTH	Up to 500 Feet
$\frac{5}{8}$	50 Coupled		\$2.72
Goodrich Signal Cotton Carcass, 1 Braid, Brown Cover			

500 Feet  
or More  
\$2.45

Page

- 29 Clipper Belt Line, First Column.....DEDUCT 10%

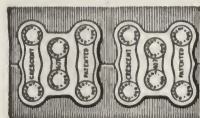


## Fig. 2347 Clipper Belt Hooks

- No. 1 Hooks.....BOX, \$0.85  
 No. 2 Hooks.....BOX, \$0.95  
 No. 3 Hooks.....BOX, \$1.00  
 No. 4 Hooks.....BOX, \$1.00  
 No. 4- $\frac{1}{2}$  Hooks.....BOX, \$1.15  
 No. 5 Hooks.....BOX, \$1.25  
 No. 6 Hooks.....BOX, \$1.50  
 1 to 99 Boxes.....DEDUCT 10%  
 100 Boxes or More.....DEDUCT 10-10%  
 Balance of Page.....DEDUCT 10%



- 30 Fig. 1950 Stag Steel Belt Hooks.....LIST LESS 70-10%  
 Standard Belt Fasteners  
 Fig. 386 Malleable.....LIST LESS 50-10%  
 Fig. 387 Steel.....LIST LESS 55-10%



- 31 Fig. 2237 Crescent Belt Fastener Plates  
 Full Packages.....NET PRICES LESS 25%  
 Figs. 3428, 2233, 3429 Crescent Rivets  
 Full Gross Packages.....NET PRICES LESS 20%  
 Balance of Page.....Prices As Shown

- 32 Flexco HD Belt Fasteners & Tools.....LIST LESS 78%



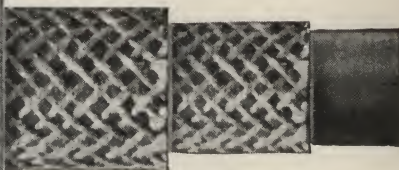
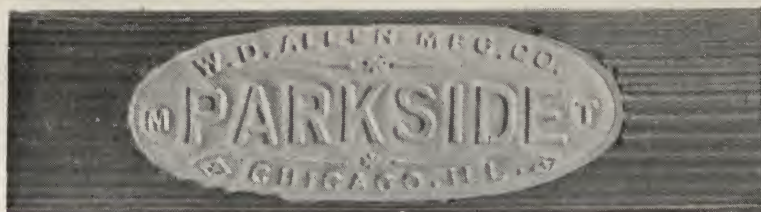
- Fig. 389 Copper Belt Rivets and Burrs  
 1 Pound Boxes.....DEDUCT 10%  
 $\frac{1}{2}$  Pound Boxes.....DEDUCT 5%  
 Fig. 399 Jones Belt Hooks.....LIST LESS 50-10%  
 Fig. 395 Covel Belt Fasteners.....★NET 1000, \$2.00



W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



Page  
33 GARDEN HOSE

Con.	Size Inches	Length Feet	★NET	Up to 500 Feet	500 Feet or More
Fig. 2364 Parkside—Black Corrugated Cover, 2 Braid					
	1/2	50 Coupled	LENGTH	\$4.83	\$4.34
	5/8	50 Coupled	LENGTH	\$5.10	\$4.58
	3/4	50 Coupled	LENGTH	\$5.60	\$5.04
	1/2	250 & 500	100 FEET	\$9.00	\$8.10
	5/8	250 & 500	100 FEET	\$9.54	\$8.59
	3/4	250 & 500	100 FEET	\$10.54	\$9.49

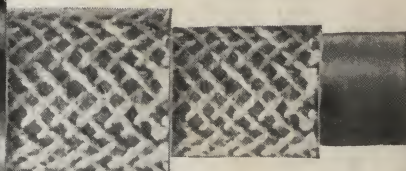
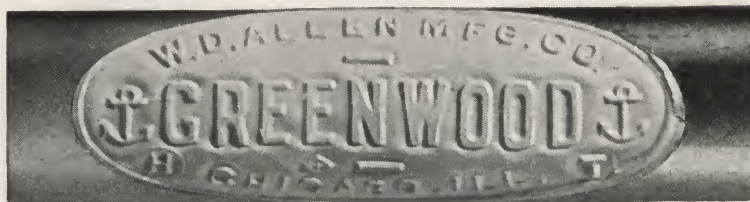


Fig. 2365 Greenwood—Black Smooth Cover, 2 Braid

3/4	50 Coupled	LENGTH	\$5.60	\$5.04
3/4	250 & 500	100 FEET	\$10.54	\$9.49

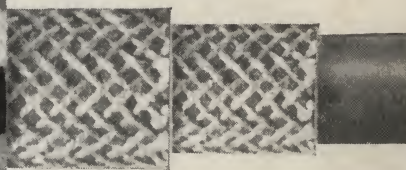
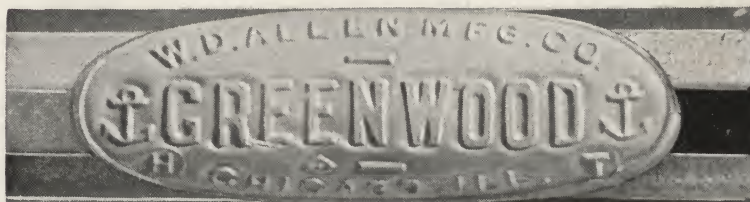


Fig. 2365D Greenwood—Black Dectagon Cover, 2 Braid

5/8	50 Coupled	LENGTH	\$5.10	\$4.58
5/8	250 & 500	100 FEET	\$9.54	\$8.59
3/4	50 Coupled	LENGTH	\$5.60	\$5.04
3/4	250 & 500	100 FEET	\$10.54	\$9.49

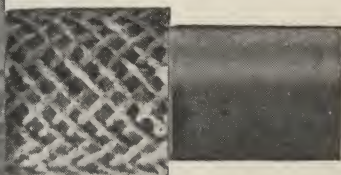
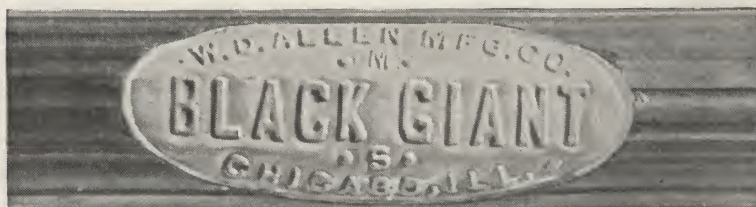
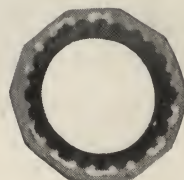


Fig. 2367 Black Giant. 1 Braid, Corrugated—

5/8	50 Coupled	LENGTH	\$4.29	\$3.86
5/8	250 & 500	100 FEET	\$7.92	\$7.13



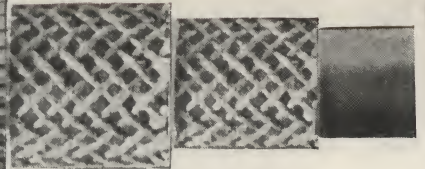
Goodrich Blue Steel Garden Club, 1 Braid

5/8	50 Coupled	LENGTH	\$4.29	\$3.86
5/8	250 & 500	100 FEET	\$7.92	\$7.13

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# CONFIDENTIAL DEALERS PRICES



Page  
33 GARDEN HOSE

Con.	Size Inches	Length Feet	★NET	Up to 500 Feet	500 Feet or More
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Fig. 2978 Champion Red—Corrugated Cover, 2 Braid

5/8	50 Coupled	LENGTH		\$5.25	\$4.72
3/4	50 Coupled	LENGTH		\$5.75	\$5.20
5/8	250 & 500	100 FEET		\$9.83	\$8.90
3/4	250 & 500	100 FEET		\$10.83	\$9.80

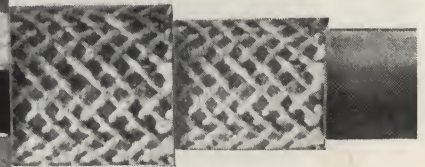


Fig. 2978D Champion Steel Blue—Dectagon Cover, 2 Braid

5/8	50 Coupled	LENGTH		\$5.25	\$4.72
3/4	50 Coupled	LENGTH		\$5.75	\$5.20
5/8	250 & 500	100 FEET		\$9.83	\$8.90
3/4	250 & 500	100 FEET		\$10.83	\$9.80

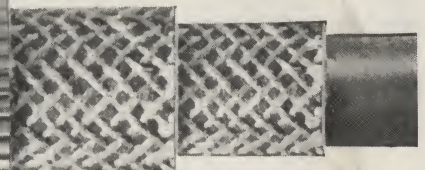
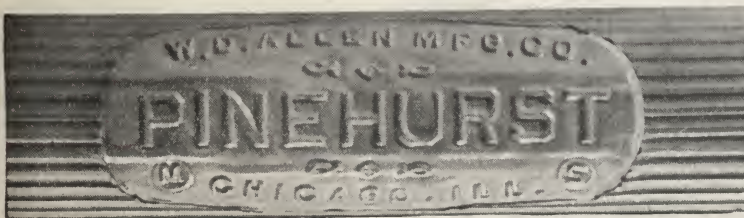


Fig. 4081 Pinehurst Green—Corrugated Cover, 2 Braid

5/8	50 Coupled	LENGTH		\$5.46	\$4.87
3/4	50 Coupled	LENGTH		\$5.96	\$5.33
5/8	250 & 500	100 FEET		\$10.26	\$9.41
3/4	250 & 500	100 FEET		\$11.26	\$10.31

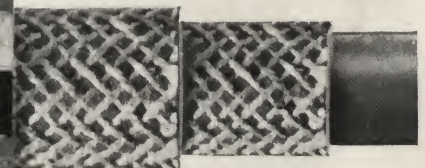


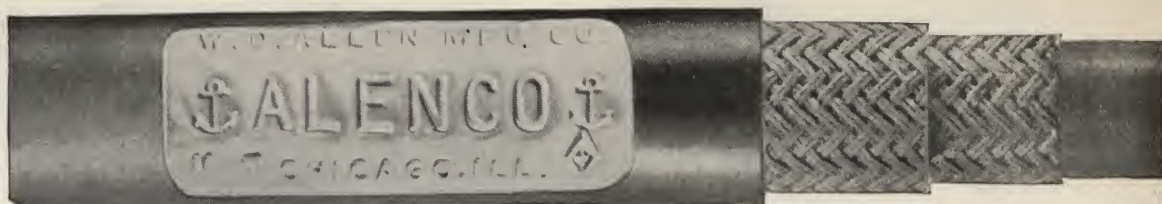
Fig. 4081D Pinehurst Green—Dectagon Cover, 2 Braid

5/8	50 Coupled	LENGTH		\$5.46	\$4.87
3/4	50 Coupled	LENGTH		\$5.96	\$5.33
5/8	250 & 500	100 FEET		\$10.26	\$9.41
3/4	250 & 500	100 FEET		\$11.26	\$10.31

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# CONFIDENTIAL DEALERS PRICES



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## 33 GARDEN HOSE

Con. Size Inches	Length Feet	★NET	Up to 500 Feet	500 Feet or More
Fig. 2368 Alenco	Brown—Smooth Cover, 2 Braid			
$\frac{5}{8}$	50 Coupled	LENGTH	\$6.80	\$6.12
$\frac{3}{4}$	50 Coupled	LENGTH	\$7.63	\$6.87
$\frac{5}{8}$	250 & 500	100 FEET	\$12.93	\$11.64
$\frac{3}{4}$	250 & 500	100 FEET	\$14.62	\$13.15

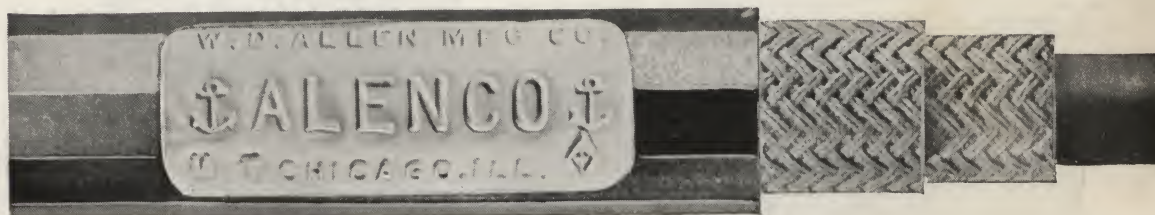


Fig. 2368D Alenco Brown—Dectagon Cover, 2 Braid

$\frac{5}{8}$	50 Coupled	LENGTH	\$6.80	\$6.12
$\frac{3}{4}$	50 Coupled	LENGTH	\$7.63	\$6.87
$\frac{5}{8}$	250 & 500	100 FEET	\$12.93	\$11.64
$\frac{3}{4}$	250 & 500	100 FEET	\$14.62	\$13.15

35 Fig. 2378 Alenco Water Hose

1	50 Coupled	LENGTH	\$14.00	\$13.50
$1\frac{1}{4}$	50 Coupled	LENGTH	\$23.50	\$22.90
$1\frac{1}{2}$	50 Coupled	LENGTH	\$29.50	\$28.00
1	250 & 500	100 FEET	\$27.00	\$26.00
$1\frac{1}{4}$	250 & 500	100 FEET	\$45.00	\$43.75
$1\frac{1}{2}$	250 & 500	100 FEET	\$57.00	\$54.15

34 Fig. 2369 Premier Greenhouse Hose, 2 Braid

$\frac{3}{4}$	50 Coupled	LENGTH	\$9.75	\$9.26
$\frac{3}{4}$	250 & 500	100 FEET	\$19.00	\$18.05

Golf Hose, 2 Braid

1	50 Coupled	LENGTH	\$10.50	\$9.98
1	250 & 500	100 FEET	\$20.00	\$19.00

Page

34 Fig 2369 Premier Greenhouse Hose—See prices above.

Fig. 2362 Garden King 7 Ply Garden Hose

$\frac{1}{2}$ Inch, 7 Ply.....	★NET FOOT, \$0.14
$\frac{3}{4}$ Inch, 7 Ply.....	★NET FOOT, \$0.15
$\frac{1}{2}$ Inch, 7 Ply.....	★NET FOOT, \$0.16

Fig. 2363 Lexington Garden Hose

$\frac{1}{2}$ Inch, 3 Ply.....	★NET FOOT, \$0.16
$\frac{3}{4}$ Inch, 4 Ply.....	★NET FOOT, \$0.18

Fig. 2367 Black Giant Braided Hose

See Prices on a Preceding Page

SPECIAL! Contractors Water Hose

1 Inch, 7 Ply.....	★NET FOOT, \$0.24
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Fig. 410 Wire Winding.....Prices As Shown

35 Fig. 2378 Alenco Water Hose.....See Prices Above

Fig. 4523 United States Water Hose

1 to 49 Feet.....	★NET PRICES LESS 10%
50 Feet or More.....	★NET PRICES LESS 10-10%
2—50 Foot Lengths of a Size	★NET PRICES LESS 10-10-10%

Page

35 Fig. 2375 Yale Water Hose

Con. 1 to 49 Feet.....	★NET PRICES LESS 10%
50 Feet or More.....	★NET PRICES LESS 10-10%
2—50 Foot Lengths of a Size	★NET PRICES LESS 10-10-10%

Fig. 4295 Road Builders Water Hose

1 to 49 Feet.....	★NET PRICES LESS 10%
50 Feet or More.....	★NET PRICES LESS 10-10%
2—50 Foot Lengths of a Size	★NET PRICES LESS 10-10-10%

Fig. 2377 Lexington Water Hose

1 to 49 Feet.....	★NET PRICES LESS 10%
50 Feet or More.....	★NET PRICES LESS 10-10%
2—50 Foot Lengths of a Size	★NET PRICES LESS 10-10-10%

36 Fig. 2379 Three Star Super Steam Hose

1 to 49 Feet.....	★NET PRICES LESS 10%
50 Feet or More.....	★NET PRICES LESS 10-10%
2—50 Foot Lengths of a Size	★NET PRICES LESS 10-10-10%

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# CONFIDENTIAL DEALERS PRICES



- Page 37 Fig. 2332 Yale Steam Hose  
 1 to 49 Feet.....★NET PRICES LESS 10%  
 50 Feet or More.....★NET PRICES LESS 10-10%  
 2-50 Foot Lengths of a Size  
 ★NET PRICES LESS 10-10-10%

- Fig. 2390 Lexington Steam Hose  
 1 to 49 Feet.....★NET PRICES LESS 10%  
 50 Feet or More.....★NET PRICES LESS 10-10%  
 2-50 Foot Lengths of a Size  
 ★NET PRICES LESS 10-10-10%

- Fig. 4524 United States Steam Hose  
 1 to 49 Feet.....★NET PRICES LESS 10%  
 50 Feet or More.....★NET PRICES LESS 10-10%  
 2-50 Foot Lengths of a Size  
 ★NET PRICES LESS 10-10-10%

- Fig. 4468 Brewers Hose  
 1 to 49 Feet.....★NET PRICES LESS 10%  
 50 Feet or More.....★NET PRICES LESS 10-10%  
 2-50 Foot Lengths of a Size  
 ★NET PRICES LESS 10-10-10%

- Fig. 4525 Brewers Couplings.....★NET PRICES LESS 10%



- 38 Fig. 2372 White Cover Dairy Washout Hose  
 3/4 Inch.....FOOT, \$0.46  
 1 Inch.....FOOT, \$0.64

- Fig. 4117 Red Cover Creamery Washout Hose  
 3/4 Inch.....FOOT, \$0.46  
 1 Inch.....FOOT, \$0.64  
 1-1/4 Inch.....FOOT, \$0.85

- Fig. 4526 Dairy Washout Hose—See Red Book for prices.

- DISCOUNT FOR ENTIRE PAGE**  
 1 to 49 Feet (Cut Lengths). ★ABOVE PRICES LESS 10%  
 50 Foot Lengths. ....★ABOVE PRICES LESS 10-10%  
 2 or More 50 Foot Lengths  
 ★ABOVE PRICES LESS 10-10-10%

- 39 Fig. 2402 Rough Bore Suction Hose. Carried in 10, 12, 15, 20 and 25 foot lengths. This hose cannot be cut.  
**LIST FOOT WITHOUT COUPLINGS**  

Size, Inch.....	2	2 1/2	3	4
List Foot.....	\$1.27	\$1.46	\$1.77	\$2.42
10 to 99 Feet.....	ABOVE LIST LESS 20%			
100 to 249 Feet.....	ABOVE LIST LESS 20-10%			
250 Feet or More.....	ABOVE LIST LESS 20-10-10%			
Couplings and Clamps.....	LIST NET			

- Fig. 4527 Smooth Bore Suction Hose. Carried in 10, 12, 15, 20 and 25 foot lengths. This hose cannot be cut.  

Size, Inch.....	2	2 1/2	3
List Foot.....	\$1.44	\$1.78	\$1.99
Size, Inch.....	4	5	6
List Foot.....	\$2.64	\$5.56	\$6.88
10 to 99 Feet.....	ABOVE LIST LESS 20%		
100 to 249 Feet.....	ABOVE LIST LESS 20-10%		
250 Feet or More.....	ABOVE LIST LESS 20-10-10%		
Nipples Wired On.....	LIST NET		

- Fig. 2401 Smooth Bore Suction Hose—Wire Reinforced  

Size, Inch	List Foot	Size, Inch	List Foot
1 1/2.....	\$1.33	5.....	\$5.82
2.....	\$1.52	6.....	\$7.23
2 1/2.....	\$1.93	8.....	\$10.34
3.....	\$2.10	10.....	\$12.92
3 1/2.....	\$2.36	12.....	\$14.82
4.....	\$2.76		
1 to 7 Feet.....	ABOVE LIST NET		
8 to 99 Feet.....	ABOVE LIST LESS 20%		
100 Feet or More.....	ABOVE LIST LESS 20-10%		
250 Feet or More.....	ABOVE LIST LESS 20-10-10%		
Other Sizes than Above.....	Prices On Request		

- 40 Fig. 4638 New Type Cord Smooth Bore Suction and Discharge Hose..... DEDUCT 10%  
 Fig. 4424 Swimming Pool Hose..... DEDUCT 10%



- Page 40 Fig. 2397 Hard Rubber Suction Hose  
 Con. Size, Inch..... 3/4 1 1 1/2 1 3/4  
 ★NET FOOT..... \$0.26 \$0.32 \$0.36 \$0.43  
 50 Feet or More..... \$0.24 \$0.29 \$0.32 \$0.39



- Fig. 441 Mandarin Wire Lined Tank Hose  
 2 Inch.....★NET FOOT, \$0.79  
 Bundles of 4 Assorted Lengths.....★NET FOOT, \$0.72

- SPECIAL!** Fig. 2400 United States Wire Lined Suction Hose. Not Shown in Red Book. Rubber Cover. Made to stand excessive abuse. This hose is reinforced with a heavy flat wire wound spirally on the inside and tends to prevent collapse. Soft rubber in the lining. Enlarged ends. Cannot be cut. 15, 20, 25 Foot Lengths.  
 2 Inch.....★NET FOOT, \$0.53  
 Bundles of 4 Asst. Lengths★NET FOOT, \$0.49

- 41 Fig. 4639 New Type Cord Distillate Hose..... DEDUCT 10%  
 Fig. 4031 Distillate or Fuel Oil Hose..... DEDUCT 10%  
 Fig. 3259 Gasoline Hose..... DEDUCT 10%

- 41A Fig. 3255 Garage Air Hose..... Prices As Shown  
 Fig. 3611 Interlocked Auto Heater Tubing..... DEDUCT 10%  
 Fig. 2388 Automobile Pump Tubing..... DEDUCT 10%  
 Fig. 3433 Schrader Air Chuck.....★NET EACH, \$0.59



- Fig. 2385 Allen's Safety Automobile Radiator Hose

Size, Inch	List Foot	Size, Inch	List Foot
3/4.....	\$0.195	1 1/2.....	\$0.30
1.....	\$0.203	1 3/4.....	\$0.32
1 1/4.....	\$0.214	2.....	\$0.34
1 1/2.....	\$0.233	2 1/2.....	\$0.388
1 3/4.....	\$0.252	3.....	\$0.448
2.....	\$0.28	3 1/2.....	\$0.523

Sold in 3 Foot lengths only. The following prices apply on one size or on assorted sizes.

- 1 to 5 Lengths.....ABOVE LIST LESS 10%  
 6 to 19 Lengths.....ABOVE LIST LESS 20%  
 20 Lengths or More.....ABOVE LIST LESS 20-10%

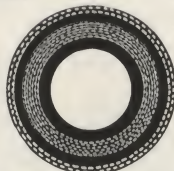
- Fig. 3557 Automobile Washout Hose....★NET FOOT, \$0.22



# CONFIDENTIAL DEALERS PRICES

Page  
41B Entire Page of Hose

1 to 49 Feet.....LIST LESS 10%  
50 to 99 Feet.....LIST LESS 20%  
100 to 249 Feet.....LIST LESS 20-10%  
250 Feet or More.....LIST LESS 20-10-10%



42 Fig. 443 Tornado Pneumatic Air Tool Hose

Size, Inch	Ply	★NET FOOT PLAIN	★NET FOOT With Oval Wire Winding
		No Winding	
1/4	5	\$0.17	\$0.21
3/8	7	\$0.20	\$0.24
1/2	7	\$0.22	\$0.26
3/4	7	\$0.25	\$0.30
1	9	\$0.37	\$0.43

Fig. 4528 Contractors Air Drill Hose

1/4 Inch, 4 Ply.....	★NET FOOT, \$0.24
3/8 Inch, 4 Ply.....	★NET FOOT, \$0.28
1 Inch, 4 Ply.....	★NET FOOT, \$0.34
1 Inch, 5 Ply.....	★NET FOOT, \$0.40

Fig. 4529 Red Cover High Pressure Air Drill and Grease Hose

1/4 Inch, 7 Ply.....	★NET FOOT, \$0.25
3/8 Inch, 7 Ply.....	★NET FOOT, \$0.32
1 Inch, 9 Ply.....	★NET FOOT, \$0.46

Fig. 2390 Welding or Oxy-Acetylene Hose

1/4 Inch.....	List 100 Feet, \$17.80
3/8 Inch.....	List 100 Feet, \$19.70
1/2 Inch.....	List 100 Feet, \$21.40
1 to 49 Feet.....	ABOVE LIST LESS 10%
50 to 99 Feet.....	ABOVE LIST LESS 20%
100 to 249 Feet.....	ABOVE LIST LESS 20-10%
250 Feet or More.....	ABOVE LIST LESS 20-10-10%

43 Fig. 2370 Spray Hose

1 to 49 Feet.....	LESS 10%
50 to 99 Feet.....	LESS 20%
100 to 249 Feet.....	LESS 20-10%
250 Feet or More.....	LESS 20-10-10%

Fig. 4640 Spray Hose

1 to 49 Feet.....	LESS 10%
50 to 99 Feet.....	LESS 20%
100 to 249 Feet.....	LESS 20-10%
250 Feet or More.....	LESS 20-10-10%

Fig. 3558 Paint Spray Hose

1 to 49 Feet.....	LESS 10%
50 to 99 Feet.....	LESS 20%
100 to 249 Feet.....	LESS 20-10%
250 Feet or More.....	LESS 20-10-10%

Fig. 2384 Lexington Chemical Engine Hose

Sold only in 50 Foot Lengths.	
50 Foot Length.....	LESS 10%
100, 150 or 200 Feet.....	LESS 20%
250 Feet or More.....	LESS 20-10%



Fig. 2371 Vacuum Cleaner Hose  
Sold in 50 Foot Lengths only.

50 Foot Length.....	LESS 10%
100, 150 or 200 Feet.....	LESS 20%
250 Feet or More.....	LESS 20-10%

Fig. 2383 Sand Blast Hose

Sold in 50 Foot Lengths only.	
50 Foot Length.....	LESS 10%
100, 150 or 200 Feet.....	LESS 20%
250 Feet or More.....	LESS 20-10%

Page

44 Flexible Metal Hose.....Prices as Shown

45 Fig. 539 White Rubber Tubing

50 Foot Lengths.....	LIST LESS 55%
100 Foot Lengths.....	LIST LESS 55-10%
250 Foot Lengths.....	LIST LESS 55-20%
500 Foot Lengths.....	LIST LESS 55-20-10%

Fig. 2392 Windsor Cloth Inserted Gas Tubing

LIST 100 FEET.....	\$7.25
1 to 99 Feet.....	ABOVE LIST LESS 10%
100 to 249 Feet.....	ABOVE LIST LESS 20%
250 to 499 Feet.....	ABOVE LIST LESS 20-10%
500 Feet or More.....	ABOVE LIST LESS 20-10-10%



Fig. 2391 Red Cloth Insertion Tubing

Inch.....	1/4	5/16	3/8	1/2	1/2	5/8
Plies.....	3	3	3	3	5	3
LIST 100 FEET	\$8.45	\$9.00	\$9.70	\$11.00	\$13.75	\$14.30
1 to 99 Feet.....	ABOVE LIST LESS 10%					
100 to 249 Feet.....	ABOVE LIST LESS 20%					
250 to 499 Feet.....	ABOVE LIST LESS 20-10%					
500 Feet or More.....	ABOVE LIST LESS 20-10-10%					



Fig. 4032 Corrugated Colored Rubber Tubing, Green, Blue or Orchid.....★NET 100 FEET, \$4.00

Fig. 3648 Kantleke Gas Tubing

Length Feet.....	2	5	6
★NET EACH.....	\$0.24	\$0.43	\$0.50

Fig. 2441 Metallic Gas Tubing, 500 Foot Coil, Without Ends  
★NET 100 FEET, \$3.20

Cut Lengths, Rubber Connections On Each End					
Length Feet.....	2	3	4	5	6
★NET EACH.....	\$0.16	\$0.20	\$0.23	\$0.27	\$0.30
Length Feet.....	7	8	9	10	
★NET EACH.....	\$0.34	\$0.38	\$0.40	\$0.45	

Fig. 2393 Gas Tubing Ends.....★NET DOZEN, \$0.48

Fig. 2389 Milking Machine Tubing.....Prices On Request



46 Fig. 506 Good Luck Red Sheet Packing

1 to 49 Pounds.....	★NET POUND, \$0.25
50 to 99 Pounds.....	★NET POUND, \$0.23
100 to 199 Pounds.....	★NET POUND, \$0.22
200 Pounds or More.....	★NET POUND, \$0.20

SPECIAL! Red Sheet Packing

1 to 49 Pounds.....	★NET POUND, \$0.22
50 to 99 Pounds.....	★NET POUND, \$0.19
100 Pounds or More.....	★NET POUND, \$0.17

Fig. 2769 Rainbow Red Sheet Packing

1 to 24 Pounds.....	★NET POUND, \$0.60
25 Pound Roll or More.....	★NET POUND, \$0.56

Balance of Page.....Prices As Shown

47 Fig. 2404 No. 101 High Pressure Compressed Sheet Packing

★NET POUND, \$0.45

Fig. 505 Auto Wire Woven Asbestos Gas Engine Packing

★NET POUND, \$0.55

Fig. 3287 Vellumoid Sheet Packing

Less than 5 Square Yards.....	LIST LESS 33 1/3-10%
5 Square Yards or More.....	LIST LESS 40-10-10%

Balance of Page.....Prices As Shown

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# CONFIDENTIAL DEALERS PRICES

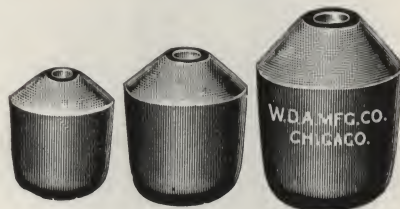


- Page 48
- Fig. 522 Alenco Spiral Rod Packing... ★NET POUND, \$0.50  
 Fig. 2407 Massasoit Spiral Packing... ★NET POUND, \$0.75  
 Fig. 523 Columbia High Pressure Spiral Packing... ★NET POUND, \$1.00  
 Fig. 518 Peerless Spiral Packing... ★NET POUND, \$1.05  
 Fig. 513 Square Piston Packing—Coarse Duck... ★NET POUND, \$0.50  
 Fig. 515 Square Hydraulic Packing—Fine Duck... ★NET POUND, \$0.72  
 Fig. 524 Alenco Ring Packing... ★NET POUND, \$1.50
- 49 Fig. 509 Mephisto Tubular Gasket Packing... ★NET POUND, \$0.60  
 Fig. 510 Eclipse Tubular Gasket Packing... ★NET POUND, \$0.75  
 Fig. 511 Jenkins Bros. Tubular Gasket Packing... ★NET POUND, \$1.00
- Fig. 3286 Garlock Packing  
 Mfrs. 777... ★NET POUND, \$1.00  
 Mfrs. 778 to 200... Prices As Shown
- Allen's Flax Packing  
 Fig. 303E Emergency... ★NET POUND, \$0.55  
 Fig. 303A Arrow... ★NET POUND, \$0.75
- Fig. 3225 Automobile Pump Packing  
 Small Box... ★NET BOX, \$0.27  
 Medium Box... ★NET BOX, \$0.45  
 Large Box... ★NET BOX, \$0.63
- Fig. 3998 Allen Anti-Friction Metallic Packing  
 1 to 11... ★NET CARTON, \$0.25  
 12 or More... ★NET CARTON, \$0.18
- Fig. 3291 Flexible Spiral Metallic Packing... ★NET POUND, \$1.75  
 Fig. 520 Rawhide Hydraulic Packing... ★NET POUND, \$2.50



- 50 Fig. 550 Graphobestos Valve Stem Packing  
 1 to 5... ★NET POUND SPOOL, \$0.90  
 6 to 9... ★NET POUND SPOOL, \$0.80  
 10 to 24... ★NET POUND SPOOL, \$0.72  
 25 or more... ★NET POUND SPOOL, \$0.64  
 1 to 5... ★NET 1/4 POUND SPOOL, \$0.25  
 6 to 10... ★NET 1/4 POUND SPOOL, \$0.22  
 11 to 24... ★NET 1/4 POUND SPOOL, \$0.18  
 25 or more... ★NET POUND SPOOL, \$1.6

- Page 50
- Con. Figs. 527, 528 and 2408 Graphite... Prices As Shown  
 Fig. 516 Asbestos Wick Packing... ★NET POUND, \$0.29  
 Fig. 517 Asbestos Rope Packing... ★NET POUND, \$0.33  
 Fig. 531-I Italian Hemp Packing  
 1 to 24 Pounds... ★NET POUND, \$0.38  
 25 Pound Bales or More... ★NET POUND, \$0.36  
 Fig. 531-A American Hemp Packing  
 1 to 24 Pounds... ★NET POUND, \$0.32  
 24 Pound Bales or More... ★NET POUND, \$0.30  
 Fig. 2409 Candle Wicking  
 Standard Grade... ★NET POUND, \$0.27  
 Extra Grade... ★NET POUND, \$0.36  
 Daniels P. P. P. Packing  
 Fig. 526-Q182 Regular... ★NET POUND, \$0.90  
 Fig. 526-Q183 High Pressure... ★NET POUND, \$1.10  
 Fig. 519 Palmetto Twist Packing... ★NET POUND, \$1.65  
 Fig. 2419 Palmetto Braided Piston Packing... ★NET POUND, \$1.65  
 Fig. 521 Selden Packings... Prices As Shown



- 51 Fig. 543 Faucet or Fuller Balls  
 Black, 1/2, 3/4 or 1 Inch... ★NET POUND, \$0.45  
 Red, 1/2, 3/4 or 1 Inch... ★NET POUND, \$0.50  
 Fig. 2410 Special Graphite Combination Faucet or Fuller Balls... ★NET POUND, \$0.70  
 Fig. 2773 GENUINE Blue Bell Combination Faucet or Fuller Balls... ★NET POUND, \$0.85  
 Fig. 3961 Diaphragm for Sloan Valve... ★NET EACH, \$0.40  
 Fig. 3962 Auxiliary Valve Seat for Sloan Valve... ★NET EACH, \$0.03



Fig. 542 Faucet or Bibb Washers

★NET 100 IN BOX					
Size Inch	Outside Diameter	Blue Asbestos	Tuff Wilbow	Fibre	
3/4	3/8	\$0.45	\$0.85	\$0.50	
7/8	7/8	\$0.55	\$0.95	\$0.50	
1	1 1/8	\$0.65	\$1.05	\$0.53	
1 1/4	1 1/4	\$0.70	\$1.10	\$0.55	
1 1/2	1 1/2	\$0.80	\$1.25	\$0.60	
1 3/4	1 3/4	\$0.85	\$1.40	\$0.62	
2	2	\$1.05	\$1.90	\$0.70	
2 1/4	2 1/4	\$1.40	\$2.35	\$0.95	

Tuff Wilbow Bibb Washer Assortments, 100 in Can

★NET CAN, \$1.20

Fig. 2413 Beveled Faucet or Bibb Washer

★NET 100 IN BOX					Genuine
Size Inch	Outside Diameter	Graphite Hard	Tuff Wilbow	Asbestos	Blue
3/4	3/8	\$0.65	\$0.95	\$0.55	\$0.55
7/8	7/8	\$0.80	\$1.10	\$0.65	\$0.65
1	1 1/8	\$0.85	\$1.15	\$0.70	\$0.70
1 1/4	1 1/4	\$0.90	\$1.25	\$0.80	\$0.80
1 1/2	1 1/2	\$1.00	\$1.40	\$0.95	\$0.95
1 3/4	1 3/4	\$1.20	\$1.50	\$1.00	\$1.00
2	2	\$1.40	\$1.65	\$1.10	\$1.10
2 1/4	2 1/4	\$1.60	\$2.05	\$1.25	\$1.25
2 1/2	2 1/2	\$2.25	\$2.50	\$1.65	\$1.65

100 Assorted Tuff Wilbow Beveled Bibb Washers

★NET CAN, \$1.25

Fig. 3960 Bibb Washers for Chicago Faucets. ★NET 100, \$1.20

Fig. 551 Red Pure Gum Pipe Union Gaskets

★NET POUND BOX, \$0.55

Rubber Diaphragms for Trench Pumps

Fig. 537 Edson Pattern... DEDUCT 10%

Fig. 538 Loud Pattern... DEDUCT 10%

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



Page 51  
Con. Fig. 538 Rubber Diaphragm for Steam Regulators

Outside Diameter Inches	For Low Pressure ★NET EACH	For High Pressure ★NET EACH
6	\$0.24	\$0.38
7	\$0.27	\$0.44
8	\$0.30	\$0.54
9	\$0.34	\$0.70
10	\$0.40	\$0.88
12	\$0.49	.....

Fig. 555 Syphon Valve Washers, Feather Edge

1 1/4 Inch.....	★NET DOZEN, \$0.45
1 1/2 Inch.....	★NET DOZEN, \$0.50
1 3/4 Inch.....	★NET DOZEN, \$0.60
2 Inch.....	★NET DOZEN, \$0.65

Fig. 2414 Syphon Packers

No. 1.....1 1/2 x 3 1/4 Inches.....	★NET DOZEN, \$0.90
No. 2.....1 1/2 x 3 1/4 Inches.....	★NET DOZEN, \$1.05
No. 3.....2 1/2 x 3 1/4 Inches.....	★NET DOZEN, \$1.10

52 Fig. 2080 Sink Plugs

1 Inch.....	★NET DOZEN, \$0.24
1 1/4 Inch.....	★NET DOZEN, \$0.27
1 1/2 Inch.....	★NET DOZEN, \$0.29
1 3/4 Inch.....	★NET DOZEN, \$0.33
1 1/2 Inch.....	★NET DOZEN, \$0.35
1 3/4 Inch.....	★NET DOZEN, \$0.50
1 1/2 Inch.....	★NET DOZEN, \$0.55
2 Inch.....	★NET DOZEN, \$0.66

Fig. 2081 Suction Stoppers

Basin Size.....	★NET DOZEN, \$0.80
Bath Size.....	★NET DOZEN, \$0.93

Fig. 548 Sink Stoppers.....★NET DOZEN, \$0.93

Fig. 200-S Anti-Splasher.....★NET DOZEN, \$0.53

Fig. 2086 Dandy Closet Connection...★NET DOZEN, \$0.92

Fig. 2089 Ohliger Connections

1 1/4 Inch.....	★NET DOZEN, \$1.00
1 1/2 Inch.....	★NET DOZEN, \$1.15

Fig. 547 Sink Gaskets.....★NET DOZEN, \$0.40

Fig. 546 Mack Basin Gaskets.....★NET DOZEN, \$0.27

Rubber Hose Washers

Fig. 2416G For Garden Hose Couplings	
1 to 4 Pounds.....	★NET POUND, \$0.45
5 Pounds or More.....	★NET POUND, \$0.35
Box of 12, 24 Boxes in Carton....	★NET CARTON, \$0.40

Fig. 2416C For Common Couplings, I. P. T.

1 to 4 Pounds.....	★NET POUND, \$0.85
5 Pounds or More.....	★NET POUND, \$0.65

Fig. 2416E For Expansion Ring Couplings

1 to 4 Pounds.....	★NET POUND, \$0.85
5 Pounds or More.....	★NET POUND, \$0.65

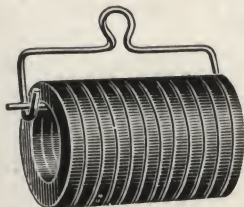


Fig. 5167 12 Hose Washers on Clip  
★NET DOZEN CLIPS, \$0.36

Fig. 2085 Closet Spud Washers

1 1/4 Inch.....	★NET DOZEN, \$0.35
1 1/2 Inch.....	★NET DOZEN, \$0.40
2 Inch.....	★NET DOZEN, \$0.53

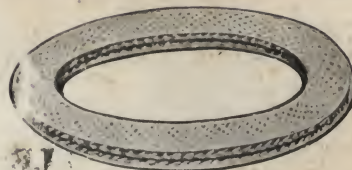
Fig. 2088 Wolff Waste Washers

Small, For Basin.....	★NET DOZEN, \$0.70
Large, For Bath.....	★NET DOZEN, \$0.95

Fig. 2087 Ideal Waste Washers

1 Inch.....	★NET DOZEN, \$0.20
1 1/4 Inch.....	★NET DOZEN, \$0.27
1 1/2 Inch.....	★NET DOZEN, \$0.55

There are approximately 3700 Items (38000 Sizes and Styles) Listed in Allen's Red Book. SAVE TIME and MONEY, ALWAYS USE ALLEN'S RED BOOK. If you do not find the items you want, order it or write us.



Page 53

Fig. 557 Asbestos Gaskets

1/8 Inch Thick.....	★NET POUND, \$0.88
1/4 Inch Thick.....	★NET POUND, \$0.83

Fig. 1231 Square Edge Gauge Glass Washers

★NET POUND, \$0.70

Fig. 1231-A Round Edge Gauge Glass Washers

★NET POUND, \$1.35

Fig. 1231-B Gauge Glass Washers.....★NET POUND, \$1.00

Fig. 2082 Slip Joint Washers.....★NET POUND, \$0.80

Fig. 2415 Fibre Union Washers.....★NET DOZEN, \$0.30

Fig. 75W Bar Bumper.....★NET 100, \$4.40

Fig. 2083 Half Round Seat Hinge Bumpers

★NET DOZEN, \$0.17

Fig. 2418 Oblong Seat Bumper.....★NET DOZEN, \$0.40

Fig. 559A Tack Bumpers.....★NET GROSS

Diameter.....	1/2	3/4	1	1 1/4
White.....	\$0.70	\$0.85	\$0.97	\$1.55
Black.....	\$0.60	\$0.66	\$0.77	\$1.40

Fig. 559B Slotted Screw Bumpers.....★NET GROSS

Diameter, Inch.....	1/2	3/4	1
White.....	\$1.80	\$2.20	\$2.50
Black.....	\$1.60	\$1.98	\$2.15

Fig. 559C Crutch and Chair Tips

No.....	17	18	19	20
★NET DOZEN.....	\$0.40	\$0.45	\$0.55	\$0.65

**SPECIAL!** Square Kewanee Boiler Gaskets, About 1-1/2 x 1-1/2 Inches with Square hole, 3/4 x 3/4 inches, to fit Kewanee Boiler Bolts.....★NET 100, \$2.65



54 Fig. 553B Alenco Plumber's Force Cups

4 1/2 Inch Red.....	★NET DOZEN, \$3.30
6 1/2 Inch Red.....	★NET DOZEN, \$3.96

Fig. 4208 Chocolate Colored Force Cups

4 1/2 Inch.....	★NET DOZEN, \$2.04
6 1/2 Inch.....	★NET DOZEN, \$2.53

Fig. 2481 Rubber Furnace Bulbs.....★NET EACH, \$0.22

Fig. 554 Rubber Elbows

1 1/4 Inch.....★NET DOZEN, \$3.85

1 1/2 Inch.....★NET DOZEN, \$7.44

Fig. 2482 Extra Quality Tank Bulbs

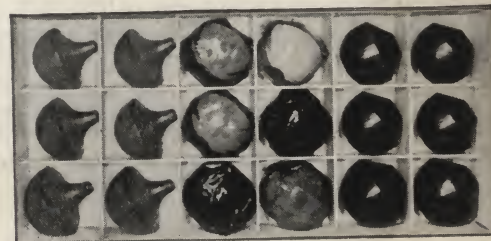
Size Inch.....	2	2 1/4	2 1/2	2 3/4	3
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★NET EACH.. \$0.10 \$0.17 \$0.19 \$0.22 \$0.25

**SPECIAL!** Tank Bulbs. Not Shown in Red Book.

2 1/2.....★NET DOZEN, \$1.36

2 3/4 Inch.....★NET DOZEN, \$1.44



**SPECIAL! TANK BULB ASSORTMENT No. 200.**

18 Tank Bulbs In Box as follows:

Black: 3-2 1/2 Inch. 3-2 3/4 Inch. White, Celluphane Wrapped. 3-2 1/2 Inch. 3-2 3/4 Inch.

Pure Gum: 3-2 1/2 Inch. 3-2 3/4 Inch.

★NET EACH BOX, \$2.00

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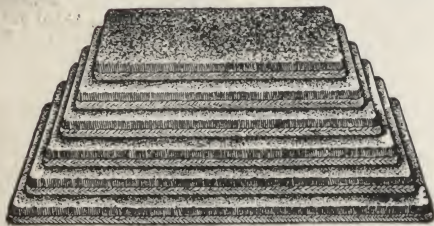


# CONFIDENTIAL DEALERS PRICES

- Page 54  
 Con. Fig. 2483 Wires For Tank Bulbs  
 Bulb Wire, 1 to 99.....★NET 100, \$1.40  
 Bulb Wire, 100 or More.....★NET 100, \$1.10  
 Upper Wire, 1 to 99.....★NET 100, \$2.75  
 Upper Wire, 100 or More.....★NET 100, \$2.00  
 Fig. 4472 Tank Float Rods  
 8 Inch, 1 to 99.....★NET 100, \$4.85  
 8 Inch, 100 or More.....★NET 100, \$3.50  
 10 Inch, 1 to 99.....★NET 100, \$5.50  
 10 Inch, 100 or More.....★NET 100, \$4.00  
 Fig. 4473 Tank Refill Tube  
 9 Inch, 1 to 99.....★NET 100, \$8.00  
 9 Inch, 100 or More.....★NET 100, \$6.00  
 Fig. 2421 Alenco Pure Rubber Cement  
 Quart Can.....★NET EACH, \$0.80  
 4 Ounce Bottle.....★NET EACH, \$0.18



55 Entire Page.....DEDUCT 10%



55 SPECIAL! Cocoa Mats—Medium Brush. Not Shown in Allen's Red Book.

- 12 x 21-1/2 Inches.....★NET EACH, \$0.65  
 14 x 25 Inches.....★NET EACH, \$0.80  
 16 x 27 Inches.....★NET EACH, \$1.05  
 18 x 30 Inches.....★NET EACH, \$1.35

## EXTRA HEAVY

- 14 x 25 Inches.....★NET EACH, \$1.00  
 16 x 27 Inches.....★NET EACH, \$1.35  
 18 x 30 Inches.....★NET EACH, \$1.65  
 20 x 33 Inches.....★NET EACH, \$2.00  
 22 x 36 Inches.....★NET EACH, \$2.40  
 24 x 39 Inches.....★NET EACH, \$3.00  
 26 x 42 Inches.....★NET EACH, \$3.60  
 28 x 45 Inches.....★NET EACH, \$4.20  
 30 x 48 Inches.....★NET EACH, \$4.80  
 36 x 60 Inches.....★NET EACH, \$8.40  
 36 x 72 Inches.....★NET EACH, \$9.60

56 All Rubber Boots  
 1 to 5 Pair.....LIST LESS 20%  
 6 Pair or More.....LIST LESS 20-8%  
 Slicker.....★NET EACH, \$3.20  
 Tarp Hat.....★NET EACH, \$0.55

57 Entire Page Except on Shoes.....DEDUCT 10%  
 Figs. 3658 and 3659 Shoes  
 1 to 5 Pair.....LIST LESS 20%  
 6 Pair or More.....LIST LESS 20-8%

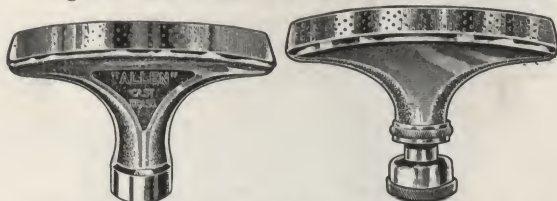
57A Entire Page.....Use Dozen Lot Price



SPECIAL! Light Weight Rubber Gloves. Not Shown in Allen's Red Book. .012 gauge thickness. Reinforced rolled cuff. Length 11 inches. Sizes 6-1/2 to 11. Specify Sizes.  
 Fig. 5502.....★NET DOZEN PAIRS, \$2.70

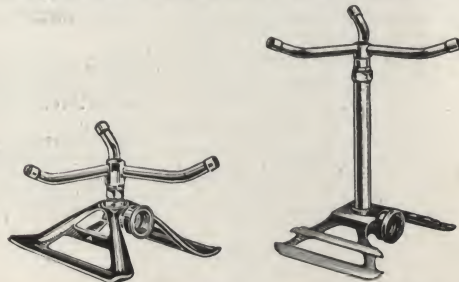


- Page 57B Fig. 85—1/4 Inch 'Justrite' Garden Hose Nozzle  
 LIST EACH, \$0.60  
 Fig. 85-1—1 Inch 'Justrite' Hose Nozzle.....LIST EACH, \$1.35  
 Fig. 7025 Allen GIANT-JUSTRITE Cast Brass Hose Nozzle.  
 Adjustable to sprays, streams, or shut-off. Large waterway.  
 7-7/8 inches overall when open.  
 1-1/4 Inch I. P. T.....LIST EACH, \$10.00  
 1-1/2 Inch I. P. T.....LIST EACH, \$10.00  
 Fig. 4703 'Jewel' Garden Hose Nozzle.....LIST EACH, \$0.45

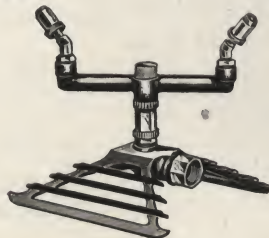


'Allen Flat Spray'—Cast Brass Base

- Fig. 7000 Brass.....LIST DOZEN, \$6.32  
 Fig. 7001 Nickel Plated.....LIST DOZEN, \$7.00  
 Fig. 4479 Brass—WITH SHUT-OFF LIST DOZEN, \$10.75  
 Fig. 126 'Universal Spray Automatic' Nozzle  
 LIST DOZEN, \$25.25  
 Fig. 254B 'Goldsmith' Hose Rack.....LIST DOZEN, \$14.00  
 Fig. 129 'Rose' Sprinkler  
 3/4 Inch, H.P.T.....LIST DOZEN, \$3.50  
 3/4 Inch, I.P.T.....LIST DOZEN, \$3.50  
 Fig. 3604 Stamped Brass 'Hot House' Sprinkler  
 3 Inch Face.....LIST DOZEN, \$5.80  
 4 Inch Face.....LIST DOZEN, \$7.00  
 Fig. 1936 Cast Brass 'Hot House' Sprinkler  
 3 Inch Face.....LIST DOZEN, \$10.00  
 4 Inch Face.....LIST DOZEN, \$14.00  
 Fig. 268 'Green House' Spray.....LIST DOZEN, \$30.00  
 Extra Plates.....LIST SET OF 2, \$1.00  
 Fig. 1937 Shut-Off Connections.....LIST DOZEN, \$15.00  
 DISCOUNT ENTIRE PAGE. ABOVE LISTS LESS 33 1/3-5%



- 58 Fig. 3463 'Dollar' Sprinkler.....LIST DOZEN, \$12.00  
 Fig. 7010 'Greenwood' Sprinkler.....LIST DOZEN, \$12.00  
 Fig. 43 'Allen Ball Bearing' Sprinkler.....Discontinued  
 Fig. 7019 'Zenith' Sprinkler.....LIST DOZEN, \$15.50  
 Fig. 7008 'Anaconda' Sprinkler.....LIST DOZEN, \$19.00  
 Fig. 7020 'Red Arrow' Sprinkler  
 With Base.....LIST DOZEN, \$50.50  
 With Roller.....LIST DOZEN, \$63.20  
 Fig. 319 'Ajax' Sprinkler  
 With Base.....LIST EACH, \$7.90  
 With Roller.....LIST EACH, \$7.90



★ NET  
 EACH  
 \$2.11

- Fig. 7003 'Parkside' Universal Nozzle Type Sprinkler  
 LIST DOZEN, \$40.00  
 DISCOUNT ENTIRE PAGE. ABOVE LISTS LESS 33 1/3-5%

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

Page 59 Fig. 7004 'Junior' Nozzle Type Sprinkler

Fig. 7005 'Dew Drop' Sprinkler.....	LIST DOZEN, \$26.40
Fig. 7006 'Dew Drop Junior' Sprinkler.....	LIST DOZEN, \$19.00
Fig. 7012 'Allen Square Shooter'.....	LIST DOZEN, \$15.50
Fig. 4572 'Four Square' Sprinkler.....	LIST DOZEN, \$22.00
Fig. 3607 'Globe' Lawn Sprinkler.....	LIST DOZEN, \$11.60
Fig. 4519 'Spike' Sprinkler.....	LIST DOZEN, \$3.47
Fig. 54 'C.B.G.' Sprinkler.....	LIST DOZEN, \$19.00
Fig. 53 'Evanston' Sprinkler.....	LIST DOZEN, \$4.25
Fig. 252 'Two-In-One' Sprinkler.....	LIST DOZEN, \$8.75
Fig. 4080 'Aetna' Sprinkler.....	LIST DOZEN, \$14.75
Fig. 4080 'Aetna' Sprinkler.....	LIST DOZEN, \$7.50

DISCOUNT ENTIRE PAGE.ABOVE LISTS LESS 33 1/3-5%

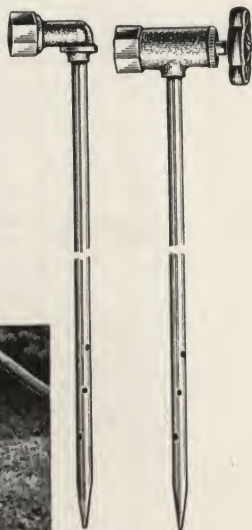


- 60 Fig. 3855 'Chicago' Multiple Sprinkler LIST DOZEN, \$9.90
- Fig. 4573 'Allen Square' Multiple Sprinkler LIST DOZEN, \$9.90
- Fig. 4301 'Sunshine' Multiple Sprinkler LIST DOZEN, \$9.30
- Fig. 65A 'Baby Ring' Wrought Brass Sprinklers All Brass LIST DOZEN, \$8.30
- Galvanized Base, Brass Top..... LIST DOZEN, \$7.00
- Fig. 261 'Buckeye' Half Circle Brass Sprinkler..... LIST DOZEN, \$8.75
- Fig. 7017 'Ring' Sprinkler..... LIST DOZEN, \$9.50



Fig. 7016 Allen Improved 'Ring' Sprinkler. All Brass. LIST DOZEN, \$11.50

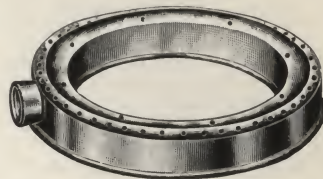
DISCOUNT ENTIRE PAGE.ABOVE LISTS LESS 33 1/3-5%



- 60 SPECIAL! Allen's Root Irrigators. 2 New Low Priced Models. The SECRET of beautiful, vigorous and healthy flowers, plants and shrubs is to WATER THE PLANTS AT THE ROOTS. With swivel connection. 36 inch tube. Not shown in Allen's Red Book
- Fig. 7023 With Shut-off..... LIST EACH, \$1.50
- Fig. 7024 Without Shut-off..... LIST EACH, \$1.00
- DISCOUNT.....ABOVE LISTS LESS 33 1/3-5%

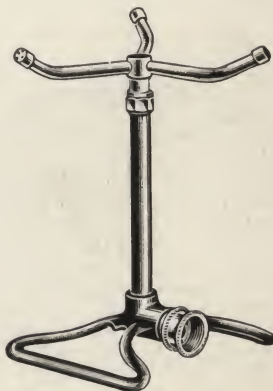
Page 60 Con. DISCONTINUED SPRINKLERS

These sprinklers have been Allen's Standard Line Models for many years. They are now discontinued as they have been replaced with a redesigned line. The following Lawn Sprinklers are offered at money saving prices. The supply is limited. Take advantage of these Closeout Prices—Order Now!



**CLOSEOUT! Fig. 3886 Ring Sprinkler.** Brass top, galvanized base. 3/4 inch extruded hose connection with cut threads. 6 in a display box. 12 in a carton. Shipping weight dozen 11 pounds. NO ORDERS accepted for less than 6.

Fig. 3886.....★NET DOZEN, \$5.00



**CLOSEOUT! Greenwood Revolving Lawn Sprinkler.** It distributes water thoroughly and efficiently. The base is 6x5-1/4 inches. Red stem. Brass head. Brass arms have a 8-1/2 inch spread. 8-7/8 inches high. 1 in a box, 12 in a carton.

Fig. 4454.....★NET EACH, \$0.55



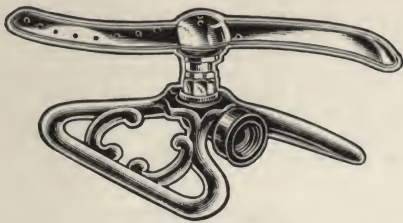
**CLOSEOUT! Busy Lawn Sprinkler.** One of the BEST distributors of water on the market. With 20 pounds pressure at the sill cock the Busy will thoroughly cover a circle 35 feet in diameter. Base is 7-3/8x6-1/8 inches. 1 in a box. 12 in a carton.

Fig. 51.....★NET EACH, \$0.65

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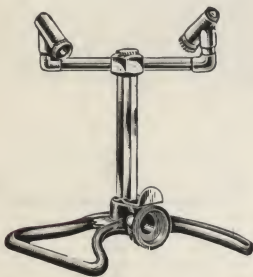


# CONFIDENTIAL DEALERS PRICES



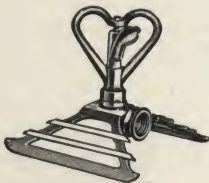
Page 60  
Con. **CLOSEOUT! Dew Drop Junior Revolving Lawn Sprinkler.** This sprinkler gives a good spray and sprinkles satisfactorily with any water pressure. The 11 inch stamped, wrought brass, perforated blade and the sturdy brass revolving head with a ground joint type bearing insures years of service. 4 inches high. 7-3/8x6-1/8 inch base. 1 in a box. 12 in a carton.

Fig. 4570.....★NET EACH, \$0.70



**CLOSEOUT! Allen 'Junior' Nozzle Type Lawn Sprinkler.** An all purpose lawn sprinkler that can be used on high and low water pressure. Simple adjustments of the nozzles produce sprays or streams. Suitable for all sprinkling requirements; the positive stop instantly changes the Junior from a revolving to a stationary sprinkler for watering half circles or irregularly shaped plots. It can be adjusted to small or large size areas. 8 inches high. 5-1/2x6-5/8 inch base. Brass arms, nozzles and hexagon tubing. 1 in a box. 12 in a carton.

Fig. 203.....★NET EACH, \$1.25



61 Fig. 7014 'Busy' Lawn Sprinkler.....LIST DOZEN, \$15.50

Fig. 57 'Hartford' Sprinklers

No. 2 2 feet high.....LIST DOZEN, \$18.95  
No. 4 4 feet high.....LIST DOZEN, \$22.10  
No. 6 6 feet high.....LIST DOZEN, \$26.32

Fig. 63 Allens 'Ideal' Sprinkler Heads

Size 0—3/8 Inch I.P.T.....LIST DOZEN, \$8.00  
Size 1—3/4 Inch H.P.T.....LIST DOZEN, \$8.00  
Size 2—3/4 Inch I.P.T.....LIST DOZEN, \$8.00  
Size 5—1/2 Inch I.P.T.....LIST DOZEN, \$8.00

Fig. 64 Allens 'Blake' Sprinkler Heads

Size 0—3/8 Inch I.P.T.....LIST DOZEN, \$6.50  
Size 1—3/4 Inch H.P.T.....LIST DOZEN, \$6.50  
Size 2—3/4 Inch I.P.T.....LIST DOZEN, \$6.50  
Size 3—1 Inch I.P.T.....LIST DOZEN, \$12.00  
Size 5—1/2 Inch I.P.T.....LIST DOZEN, \$6.50

Fig. 4478 'Chicago' Sprinkler Head.....LIST DOZEN, \$4.65

Fig. 4448 'Liberty' Sprinkler Head.....LIST DOZEN, \$4.75

DISCOUNT..... ABOVE LIST LESS 33 1/3-5%

Page

61 Fig. 290 'Red Top' Sprinkler Heads

Con. 3/4 Inch I.P.T.....LIST DOZEN, \$7.00  
1/2 Inch I.P.T.....LIST DOZEN, \$7.00  
1/4 Inch I.P.T.....LIST DOZEN, \$7.00  
3/4 Inch I.P.T. Extra Large.....LIST DOZEN, \$9.00

Fig. 67 Chicago Goose Neck Connection

LIST DOZEN, \$6.00

Fig. 68 Garden Hose Siamese

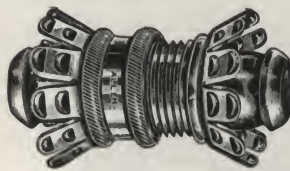
3/4 x 3/4 x 3/4 Inch.....LIST DOZEN, \$8.00  
1 x 3/4 x 3/4 Inch.....LIST DOZEN, \$9.60  
1 x 1 x 1 Inch.....LIST DOZEN, \$17.60

DISCOUNT..... ABOVE LISTS LESS 33 1/3-5%



Figs. 4289-269 Sill Cocks

1 to 11 Each.....★NET EACH, \$0.69  
1 to 5 Dozen.....★NET DOZEN, \$6.90  
6 Dozen or More.....★NET DOZEN, \$5.75



62 Fig. 251 'Allen Super Multi-Grip' Wrought Brass Clinching

Couplings For Hose Inches	LIST DOZEN Rolled Thread	LIST DOZEN Cut Thread
1/2, 3/4, or 1	\$2.34	\$3.16
1 (Not Multi-Grip)	....	\$7.00
1/2, 3/4 or 1 Female	.....	\$2.10

Fig. 250 'Allen Super Multi-Grip' Wrought Brass

Clinching Menders  
For 1/2, 3/4, and 1 Inch Hose.....LIST DOZEN, \$1.00  
For 1 Inch Hose, (Not Multi-Grip).....LIST DOZEN, \$3.00

Fig. 3368 'Bull Dog' CAST BRASS Clincher Hose Couplings

For 1/2, 3/4, and 1 Inch Hose.....LIST DOZEN, \$3.47

Fig. 2786 'Bull Dog' CAST BRASS Clincher Hose Menders

For 1/2, 3/4, and 1 Inch Hose.....LIST DOZEN, \$1.20

For 1 Inch Hose.....LIST DOZEN, \$3.00

Fig. 17 Common Cast Brass Hose Couplings

Tailpieces Inches	Connection	LIST DOZEN
3/8, 1/2, 3/4, and 1	3/4 H.P.T.	\$2.56
	3/4 I.P.T.	\$2.56
	1 I.P.T.	\$5.50

Wrought Brass Hose Couplings

Fig. No.	Tailpiece	Connection	Thread	DOZEN
2864	3/8 Inch	3/4 H.P.T.	Cut	\$2.60
2864	1/2, 3/4, 3/4	3/4 H.P.T.	Cut	\$2.46
2864	1 Inch	1 I.P.T.	Cut	\$5.40
4453C	1/2, 3/4, 3/4	3/4 H.P.T.	Cut	\$2.12
4453R	1/2, 3/4, 3/4	3/4 H.P.T.	Roller	\$1.80
4453F	1/2, 3/4, 3/4	Female	.....	\$1.42

Caldwell Hose Straps and Pliers.....Lists As Shown

Fig. 2772 Cooper Hose Menders.....Lists As Shown

Fig. 73 Wood Hose Menders.....Lists As Shown

Fig. 74 Iron Hose Menders.....LIST DOZEN

Hose Size	Plain	Galvanized
1/2 Inch	\$0.84	\$0.94
3/4 Inch	\$0.94	\$1.06
1 Inch	\$0.94	\$1.06
1 1/2 Inch	\$1.26	\$1.48

Fig. 152 Wizard Sheet Brass Hose Menders For

1/2, 3/4, and 1 Inch Hose.....LIST DOZEN, \$0.60

DISCOUNT ENTIRE PAGE.....ABOVE LISTS LESS 33 1/3-5%

63

Fig. 17C Cast Brass Water Hose Couplings—

For Hose	Connec- tion	Set	Female Half	Male Half
1/2	3/4 H.P.T.	\$2.56	\$1.71	\$1.28
3/4	3/4 H.P.T.	\$2.56	\$1.71	\$1.28
1	3/4 H.P.T.	\$2.56	\$1.71	\$1.28
1 1/2	1 I.P.T.	\$5.40	\$3.60	\$2.70

DISCOUNT..... ABOVE LIST LESS 33 1/3-5%

Fig. 4449 Cast Brass Florists Couplings

For 3/4 Inch Hose, 3/4 H.P.T.....LIST EACH, \$0.84

For 1 Inch Hose, 1 I.P.T.....LIST EACH, \$1.04

DISCOUNT..... ABOVE LIST LESS 33 1/3-5%

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# CONFIDENTIAL DEALERS PRICES

Page 63  
**Con.** Water Hose Couplings  
 Fig. 89 1 1/4 to 2 Inch..... LIST LESS 27%  
 Fig. 89 2 1/2 to 8 Inch..... LIST LESS 30%  
 Fig. 89SH Iron Suction Hose Couplings  
 3 Inch..... ★NET SET, \$3.08  
 4 Inch..... ★NET SET, \$5.07

Fig. 90 Steam or Air Hose Couplings  
 1/4 and 3/8 Inch..... LIST LESS 56%  
 1/2 Inch and Larger..... LIST LESS 50%  
 Fig. 4712 Brewers' Hose Couplings..... LIST LESS 33 1/4%  
 Fig. 4710 Distillate Hose Couplings..... LIST LESS 33 1/4%

**63A** Cast Brass High Pressure Hose Couplings  
 Size, Inch 3/8 1/2 3/4 1  
 LIST SET \$1.04 \$1.04 \$1.90 \$3.10  
 ABOVE LIST..... LESS 33 1/4%

Fig. 2496B to 2495B Air Hose Couplings  
 1 to 11..... LIST LESS 10%  
 12 to 49..... LIST LESS 10-10%  
 50 or More..... LIST LESS 25-10%  
 Fig. 44 Cast Brass Short Shank Spray Couplings  
 LIST LESS 33 1/4%

Fig. 91 Male Hose Nipples  
 1/2 and 3/4 Inch..... ★NET DOZEN, \$2.05  
 1 Inch..... ★NET DOZEN, \$3.75  
 1 1/2 Inch and Larger..... LIST LESS 28%

Fig. 92 Male and Female Hose Nipples  
 1/2 and 3/4 Inch..... ★NET DOZEN, \$2.05  
 1 Inch..... ★NET DOZEN, \$4.20  
 1 1/2 Inch and Larger..... LIST LESS 20%

Fig. 93 Hose Reducers  
 3/4 x 1/2 and 1 x 3/4 Inch..... ★NET DOZEN, \$2.08  
 1-1/4 x 3/4 Inch and Larger..... LIST LESS 17%

Fig. 94 Hose Bushings  
 1/2 x 3/4 and 3/4 x 1..... ★NET DOZEN, \$2.08  
 1 1/2 Inch and Larger..... LIST LESS 17%  
 Fig. 4709 Cast Brass Ice Skating Pond Spray  
 ★NET EACH, \$14.00

**63B** Fig. 97 Hose Nozzles—Cast Brass  
 Size, Inches 3/4 3/4 3/4 1 1  
 Length, Inches 3 6 8 12 8  
 ★NET DOZEN \$2.95 \$4.15 \$5.90 \$3.70 \$6.60

Fig. 97 1 1/4 to 2 1/2 Inch..... LIST LESS 27%  
 Fig. 24 Hose Nozzles to Wind..... DEDUCT 15%

Fig. 248 Iron Hose Nozzles  
 Size, Inches 1-1/4 1-1/2 2 2-1/2 2-1/2  
 Length, Inches 12 12 12 12 15  
 ★NET EACH \$0.75 \$1.05 \$1.20 \$1.60 \$2.05

Fig. 95 Hose Pipes With Screw Tip—Cast Brass  
 Size, Inches 3/4 3/4 3/4 1 1  
 Length, Inches 6 7-1/2 12 8 12-1/2  
 ★NET DOZEN \$5.60 \$6.35 \$9.15 \$8.00 \$9.90

1 1/2 to 2 1/2 Inch..... LIST LESS 24%  
 Fig. 96 Hose Pipes With Stopcock—Cast Brass  
 Size, Inches 3/4 3/4 3/4 1  
 Length, Inches 6 8 12 7-1/2  
 ★NET DOZEN \$11.72 \$13.85 \$19.20 \$15.95

Size, Inches 1 1-1/4 1-1/2  
 Length, Inches 12 12 12  
 ★NET DOZEN \$21.30 \$47.20 \$64.90

**64** Fig. 1923 Steel Hose Clamps..... LIST LESS 33 1/4%

**65** Fig. 3935 Stamped Sheet Brass Hose Clamps  
 3/16 to 3/4 Inch..... ★NET DOZEN, \$0.32

Water Hose Sizes  
 1 Inch, 2, 3 and 4 Ply..... LIST DOZEN, \$2.00  
 1-1/4 Inch, 3 and 4 Ply..... LIST DOZEN, \$2.50  
 1-1/2 Inch, 3 and 4 Ply..... LIST DOZEN, \$3.00  
 2 Inch, 3 and 4 Ply..... LIST DOZEN, \$4.00  
 2-1/4 Inch, 3 and 4 Ply..... LIST DOZEN, \$6.50  
 2-1/2 Inch, 3 and 4 Ply..... LIST DOZEN, \$7.00  
 3 Inch, 3 and 4 Ply..... LIST DOZEN, \$10.00  
 ABOVE LISTS..... LESS 25%

Steam Hose Sizes  
 3/4 Inch, 3 and 4 Ply..... LIST DOZEN, \$2.00  
 1 Inch, 3 and 4 Ply..... LIST DOZEN, \$2.50  
 1-1/4 Inch, 3 and 4 Ply..... LIST DOZEN, \$3.00  
 1-1/2 Inch, 3 and 4 Ply..... LIST DOZEN, \$3.50  
 1-1/2 Inch, 5 Ply..... LIST DOZEN, \$4.00  
 2 Inch, 3 and 4 Ply..... LIST DOZEN, \$5.50  
 2 Inch, 5 Ply..... LIST DOZEN, \$6.50  
 2-1/2 Inch, 3 and 4 Ply..... LIST DOZEN, \$8.50  
 2-1/2 Inch, 5 Ply..... LIST DOZEN, \$9.50  
 ABOVE LISTS..... LESS 25%

Fig. 4708 Large Size Double Bolt Stamped Brass Hose Clamps,  
 Inside Diam. 4 4-1/4 4-1/2 4-3/4 5  
 LIST DOZEN \$11.32 \$13.44 \$15.36 \$16.86 \$18.36  
 Inside Diam. 5-1/4 5-1/2 5-3/4 6 6-1/4  
 LIST DOZEN \$19.88 \$21.40 \$22.90 \$24.42 \$26.18  
 Inside Diam. 6-1/2 6-3/4 7 7-1/4 7-1/2  
 LIST DOZEN \$28.20 \$30.22 \$32.22 \$34.24 \$36.26  
 Inside Diam. 7-3/4 8 8-1/4 8-1/2 8-3/4  
 LIST DOZEN \$38.26 \$40.28 \$42.30 \$44.30 \$46.32  
 Inside Diam. 9 9-1/4 9-1/2 9-3/4 10  
 LIST DOZEN \$48.34 \$50.36 \$52.36 \$54.38 \$56.40  
 ABOVE LISTS..... LESS 33-1/3-5%

Page 65  
 Fig. 25 Garden Hose Valves..... LIST EACH, \$0.95  
**Con.** Fig. 173 California Pattern Garden Hose Valves  
 1/2 I.P.T. x 3/4 H.P.T..... LIST EACH, \$0.84  
 3/4 I.P.T. x 3/4 H.P.T..... LIST EACH, \$0.84  
 1 I.P.T. x 3/4 H.P.T..... LIST EACH, \$1.35  
 1 I.P.T. x 1 I.P.T..... LIST EACH, \$1.35  
 ABOVE..... LIST LESS 33 1/4-5%

Fig. 207 Bull Dog Cast Brass Hose Clamps  
 Water Hose Sizes  
 1 Inch, 3 and 4 Ply..... LIST DOZEN, \$2.00  
 1-1/4 Inch, 3 and 4 Ply..... LIST DOZEN, \$2.50  
 1-1/2 Inch, 3 and 4 Ply..... LIST DOZEN, \$3.00  
 2 Inch, 3 and 4 Ply..... LIST DOZEN, \$4.00  
 2-1/2 Inch, 3 and 4 Ply..... LIST DOZEN, \$7.00  
 3 Inch, 3 Ply..... LIST DOZEN, \$10.00  
 ABOVE..... LIST LESS 25%



**66** Fig. 3284 Garden Trowel..... ★NET DOZEN, \$0.84  
 Fig. 3296 Transplanter..... ★NET DOZEN, \$0.84  
 Fig. 3092 Weeder..... ★NET DOZEN, \$0.84  
 Fig. 4064 Grass Hook..... ★NET EACH, \$0.25  
 Fig. 4065 Grass Hook..... ★NET EACH, \$0.33  
 Fig. 4066 Grass Hook..... ★NET EACH, \$0.65  
 Fig. 2296 Pruning Shears..... ★NET EACH, \$0.40  
 Fig. 2485 Pruning Shears..... ★NET EACH, \$0.60  
 Fig. 2297 Pruning Shears..... ★NET EACH, \$0.50  
 Fig. 2298 Hedge Shears  
 6 Inch Blade..... ★NET EACH, \$0.65  
 8 Inch Blade..... ★NET EACH, \$1.20  
 9 Inch Blade..... ★NET EACH, \$1.30  
 10 Inch Blade..... ★NET EACH, \$1.50

Fig. V-53 Grass Shears..... ★NET EACH, \$0.50  
 Fig. V-2 Grass Shears..... ★NET EACH, \$0.33  
 Fig. 4306 Doo-Klip Pruner..... ★NET DOZEN, \$8.00  
 Fig. 4209 Pleasure Trim Lawn Shears..... Discontinued  
 Fig. 5601 Doo-Klip Long Handle Lawn Shears  
 With Wheels..... ★NET DOZEN, \$18.00  
 Fig. 3323 Grassnip..... ★NET EACH, \$0.37  
 Fig. 4304 Snip-Itt Shear..... ★NET DOZEN, \$7.20  
 Fig. 4305 Doo-Klip Shear..... ★NET DOZEN, \$16.80

**67** Fig. 587 King Triple Gear Ball Bearing Lawn Mower  
 With Two Slip-on Rubber Tires  
 Size, Inches..... 14 16 18 20  
 ★NET EACH..... \$11.00 \$12.00 \$13.00 \$14.00

Fig. 5172 Lawn Mower With Pneumatic Tires  
 16 Inch..... ★NET EACH, \$9.40  
 18 Inch..... ★NET EACH, \$10.00  
 20 Inch..... ★NET EACH, \$10.60

Fig. 588 No. 5 Ball Bearing Lawn Mower  
 Size, Inches..... 14 16 18 20  
 ★NET EACH..... \$7.00 \$7.40 \$7.90 \$8.40

Fig. 588-7. 18 Inch. 7 BLADE for cutting bent grasses  
 ★NET EACH, \$11.50

★Net Pair Extra For Rubber Tires  
 For 10 by 1 1/4 Inch Wheels..... ★PAIR, \$0.65  
 For 10 by 1 1/4 Inch Wheels..... ★PAIR, \$0.65

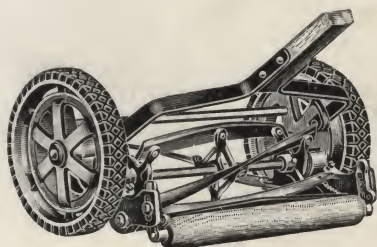


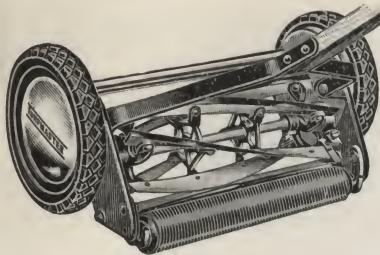
Fig. 5201 Aero Rubber Tired Ball Bearing Mower  
 14 Inch—4 Blades..... ★NET EACH, \$6.10  
 16 Inch—4 Blades..... ★NET EACH, \$6.30  
 16 Inch—5 Blades..... ★NET EACH, \$6.60  
 18 Inch—4 Blades..... ★NET EACH, \$6.60  
 18 Inch—5 Blades..... ★NET EACH, \$6.95

Fig. 4067 Indian Ball Bearing Lawn Mower  
 16 Inch, 4 Blade..... ★NET EACH, \$5.95  
 16 Inch, 5 Blade..... ★NET EACH, \$6.25

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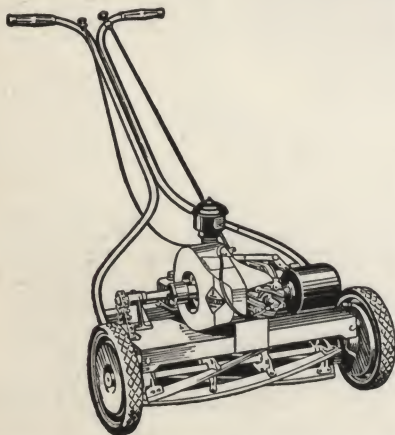


# CONFIDENTIAL DEALERS PRICES



Page 67 **NEW! Quiet Turfmaster Ball Bearing Lawn Mower.**  
 Con. Not shown in Allen's Red Book. Modernistic and Streamline in design. QUIET OPERATION. 10 inch wheels. Semi-pneumatic rubber tires. Chromium plated hub caps. Oversize RUBBER ROLLER. 5 crucible steel knives. 6 inch reel.  
 16 Inch.....★NET EACH, \$8.75  
 18 Inch.....★NET EACH, \$9.50

68 Fig. 4378 Lawn Trimmer.....★NET EACH, \$4.40  
 Fig. 4068 Putting Green Ball Bearing Lawn Mower  
 18 Inch.....★NET EACH, \$19.00  
 Grass Catchers  
 1 to 5.....LIST LESS 25%  
 6 or More.....LIST LESS 33 1/3%



**SPECIAL. JACOBSEN 'LAWN QUEEN' POWER LAWN MOWER.** Easy starting even by the inexperienced. Made with surplus power to negotiate difficult grades in perfect balance. A quality-built mower for fast, clean cutting of moderate size lawns. It is sturdy and is designed to give many years of fine, low-cost performance. Solid rubber tires. It is powerful, dependable and easy to handle. Any member of the family can operate it. It purrs along at natural walking speed—cuts the average size lawn quickly and easily. 5-blade steel reel is easily adjusted to cut as low as 1/2 inch or high as 1 1/2 inch. Jacobsen 1/2 h.p. engine delivers smooth, steady, unflinching power—more than enough for ordinary lawn cutting requirements. The generous use of roller bearings throughout makes it marvelously free-running. Suggested Resale, \$87.50

**20 INCH CUT.....★NET EACH, \$72.35**  
 Special Grass Catcher.....★NET EACH, \$2.50



All Rakes  
 1 to 5.....LIST LESS 20%  
 6 or More.....LIST LESS 30%  
 Seymour Smith Pruning Shears  
 Fig. 5173.....LIST DOZEN, \$3.00  
 Fig. 5174.....LIST DOZEN, \$8.50  
 Fig. 5175.....LIST DOZEN, \$12.00  
 Fig. 5176.....LIST DOZEN, \$24.00  
 1 to 5.....ABOVE LIST LESS 25%  
 6 or More.....ABOVE LIST LESS 33 1/3%

Page 68 Fig. 5180 Essex Hedge Shears  
 Con. 6 Inch.....LIST EACH, \$1.10  
 8 Inch.....LIST EACH, \$1.50  
 9 Inch.....LIST EACH, \$1.70  
 10 Inch.....LIST EACH, \$1.90  
 1 to 5.....ABOVE LIST LESS 25%  
 6 or More.....ABOVE LIST LESS 33 1/3%



69 All Garden Tools  
 1 to 5.....LIST LESS 20%  
 6 or More.....LIST LESS 30%



70 Fig. 580 Dude Hose Reel.....★NET EACH, \$0.65  
 6 to 11.....★NET EACH, \$0.60  
 12 or More.....★NET EACH, \$0.55  
 Fig. 582A Magic Hose Reel.....★NET EACH, \$0.85  
 Fig. 2937 "Reel Eazy" Hose Reel.....★NET EACH, \$1.25  
 Fig. 4456 Steel Hose Reel.....★NET EACH, \$1.55



Fig. 3392 Solar Self-Closing Receptacles.....LIST EACH

No.	Base Size Inches	Height Overall	Green or Gray	White Enamel
3	9x9	10-3/4	\$4.40	\$4.85
5	9x9	19	\$5.50	\$5.95
10	11-1/2x11-1/2	24-1/4	\$6.60	\$7.15
12	11-1/2x11-1/2	34	\$9.10	\$9.90
15	11-1/2x11-1/2	41-1/4	\$9.90	\$10.75
130	16x16	34-3/8	\$11.00	\$12.10
145	16x16	38-3/8	\$12.10	\$13.20
50	21x21	46-1/4	\$16.50	\$19.25
140	16x16	38-3/8	\$14.30	\$17.10
60	21x21	47-3/4	\$22.00	\$24.75
60A	No. 60 with advertising sign frames		\$25.30	

ABOVE LISTS.....LESS 20%

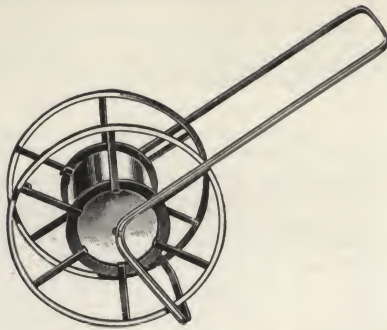
Fig. 3527 Lawn Rollers—Use Water or Sand.  
 Size No. 1 2 4 5 7 9  
 ★NET... \$5.80 \$6.40 \$7.50 \$9.00 \$11.45 \$13.15  
 Fig. 3066 Settee.....Discontinued  
 Fig. 2293 Scythe.....★NET EACH, \$1.20  
 Fig. 2294 Scythe Snahe.....★NET EACH, \$1.20

Have you looked through this Discount Sheet for the SPECIALS!

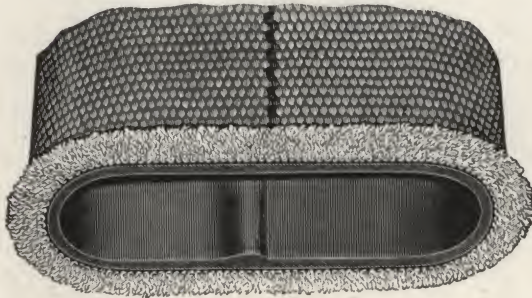
## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



- Page 71 Fig. 585 Allen All Metal Hose Reels
- |              |                    |
|--------------|--------------------|
| Size 10..... | ★NET EACH, \$4.30  |
| Size 20..... | ★NET EACH, \$4.85  |
| Size 30..... | ★NET EACH, \$7.75  |
| Size 35..... | ★NET EACH, \$14.30 |
- Fig. 2178 Steel Warehouse Carts..... DEDUCT 10%
- Fig. 40R Hand Hose Cart..... ★NET EACH, \$85.50
- Fig. 480 Park and Warehouse Reels
- |              |         |         |         |         |         |         |
|--------------|---------|---------|---------|---------|---------|---------|
| Size No..... | 21      | 31      | 32      | 41      | 51      | 61      |
| ★NET EACH    | \$11.90 | \$14.70 | \$29.70 | \$37.90 | \$45.90 | \$56.00 |
- Fig. 501C Firemen's Rubber Coats..... ★NET EACH, \$6.50
- Figs. 500-2486 Firemen's Hats..... Prices As Shown



- 72 2 1/2 Inch Cotton Rubber Lined Fire Hose
- |                            |                         |
|----------------------------|-------------------------|
| Marquette.....             | DEDUCT 15%              |
| Anaconda.....              | DEDUCT 15%              |
| Wax and Gum Treatment..... | ★NET FOOT EXTRA, \$0.05 |
| Couplings.....             | Prices As Shown         |
- 73 Fire Hose
- Municipal Seal Flex. Not Shown in Allen's Red Book.
- 2-1/2 inch double jacket treated cotton rubber lined.
- ★NET FOOT, \$0.72
- Leader Line, 1-1/2 Inch..... DEDUCT 15%
- Couplings, See Page 72..... Prices As Shown
- Lexington UNDERWRITERS' LABELED Fire Hose
- ★NET FOOT IN 50 Foot Lengths. Couplings are Extra, See Page 72, prices as shown.
- |                          |          |          |
|--------------------------|----------|----------|
|                          | 450 Feet | 500 Feet |
|                          | or Less  | or More  |
| 1-1/2 Inch Single Jacket | \$0.44   | \$0.40   |
| 2 Inch Single Jacket     | \$0.50   | \$0.46   |
| 2-1/2 Inch Single Jacket | \$0.61   | \$0.56   |
| 1-1/2 Inch Double Jacket | \$0.54   | \$0.49   |
| 2 Inch Double Jacket     | \$0.65   | \$0.57   |
| 2-1/2 Inch Double Jacket | \$0.75   | \$0.67   |
- HOSE ONLY (Couplings Are Extra)..... DEDUCT 10%
- For moisture resisting treatment on:—single jacket hose, add 3 cents Net Foot; and for double jacket hose add 5 cents Net Foot to the above prices. (No Discount).
- 74 All Cotton Rubber Lined Fire Hose..... DEDUCT 15%
- 75 Cotton Rubber Lined Mill Hose..... DEDUCT 10%
- Couplings For Mill Hose..... Prices As Shown
- Fig. 4563 Fire Engine Suction Hose..... DEDUCT 10%
- Fig. 4564 Soft Suction Fire Hose..... DEDUCT 10%
- Fig. 4713 Running Board Plates..... LIST LESS 12-10%
- 75A Fig. 2384 Lexington Chemical Engine Hose. Underwriters Labeled. 50 Foot lengths only..... DEDUCT 10%
- 250 Foot Bales. DEDUCT 10-10% FROM 100 FOOT PRICE
- Fig. 4565 Alenco Chemical Engine Hose
- Sold only in 50 Foot Lengths..... DEDUCT 10%
- 250 Foot Bales. DEDUCT 10-10% FROM 100 FOOT PRICE
- Fig. 2122A Chemical Hose Couplings..... LIST LESS 33 1/3%
- Fig. 2121 Chemical Hose Nozzles..... LIST LESS 33 1/3%
- Fig. 123 Allen Chemical Shut-Off Nozzle
- ★NET EACH, \$11.95
- Figs. 28 and 27 Siamese Connections..... LIST LESS 33 1/3%

- Page 75A Fig. 3938—2 1/2 Inch Double Male Connection
- Con. ★NET EACH, \$3.60
- Fig. 2124—2 1/2 Inch Double Female Hose Connection
- ★NET EACH, \$5.45
- Fig. 2126—2 1/2 Inch Male and Female Hose Adapter
- ★NET EACH, \$3.60
- 75B Figs. 312A to 312D Fire Department Suction Hose Couplings
- REVISED LIST SET ON 2-1/2 INCH ONLY.
- |        |        |         |         |         |
|--------|--------|---------|---------|---------|
| Inches | 312A   | 312B    | 312C    | 312D    |
| 2-1/2  | \$8.50 | \$12.00 | \$14.50 | \$12.00 |
- LIST LESS 33 1/3%
- Figs. 286A to 288 Fire Department Hydrant and Suction Hose Connections..... LIST LESS 33 1/3%
- 75C Allen Shut-off Nozzles
- Fig. For ★NET EACH
- 108A Play Pipes..... \$17.00
- 108-130 Fig. 108A and 2-1/2 Inch Coupling Adapter..... \$22.13
- 108B 1-1/2 Inch Leader Line Hose..... \$15.90
- 123 3/4 or 1 Inch Chemical Hose..... \$12.00
- 130 Adapter, Fits Fig. 108A and 2-1/2 Inch Coupling..... \$5.13
- Fig. 4417 Allen's Shut-off Siamese for 1-1/2 Inch Leader Line. Specify threads.
- Polished Brass Trim..... ★NET EACH, \$16.00
- Nickel Plated Trim..... ★NET EACH, \$18.00
- Chromium Plated Trim..... ★NET EACH, \$19.00
- The New Mystery Nozzle.
- |                       |                                      |                     |
|-----------------------|--------------------------------------|---------------------|
| Fig. No.              | Attaches Directly to                 | List Polished Brass |
| D-5344                | 2-1/2 Inch Hose.....                 | \$43.00             |
| 5344                  | Playpipe.....                        | \$35.50             |
| L-5344                | 1-1/4 or 1-1/2 In. Hose.....         | \$33.00             |
| S-5344                | 3/4 or 1 In. Booster Hose Lines..... | \$30.00             |
| Nickel Plating.....   | Add \$1.00                           |                     |
| Chromium Plating..... | Add \$2.00                           |                     |
| ABOVE LISTS.....      | LESS 10%                             |                     |
- Balance of Page..... LIST LESS 33-1/3%
- 75D Fig. 4759 Dupor Bulb Valve Rubber Respirator
- DEDUCT 15%
- Balance of Page..... Prices As Shown
- Fig. 107 Underwriter Play Pipe..... DEDUCT 10%
- Fig. 20 Fire Axe..... DEDUCT 10%
- Fig. 279 Crowbar..... DEDUCT 10%
- Fig. 494 Pickaroons..... Prices As Shown
- Fig. 119 Pipe Holder for Fire Hose..... DEDUCT 15%
- Fig. 209 Hose and Ladder Straps..... DEDUCT 15%
- Fig. 497 King Fire Dept. Lanterns..... Prices As Shown
- Fig. 498 Underwriters' Mill Lanterns..... Prices As Shown
- Figs. 11-253 Hose Spanners..... DEDUCT 15%
- 75F Fig. 474 Hose and Hydrant House
- Without Equipment..... ★NET COMPLETE, \$55.00
- Equipment Without Hose House
- ★NET COMPLETE, \$155.00
- Eclipse Fire Hydrants..... Prices As Shown
- 76 Entire Page..... Prices As Shown
- 77 Fig. 4418 Fire Department Hose Light ★NET EACH, \$5.10
- Fig. 4101 Sulphuric Acid. Approximately 200 Pounds (10 Gallons) in Carboy Container.
- The Carboy is \$5.00 ★NET EXTRA.
- ★NET POUND, \$0.04
- 5 Gallon Jug..... ★NET EACH, \$6.00
- 1 Gallon Jug..... ★NET EACH, \$1.30
- 1/2 Gallon Jug..... ★NET EACH, \$0.70
- 1 Quart Jug..... ★NET EACH, \$0.45
- Fire Pails ★NET DOZEN
- Fig. 400—12 Quart Flat Bottom..... \$5.55
- Fig. 496—12 Quart Round Bottom..... \$6.35
- 14 Quart Sizes are discontinued.
- Balance of Page..... Prices As Shown
- 78 Fig. 4991 National Carbon Dioxide CO<sub>2</sub> Fire Extinguishers
- Model 7..... ★NET EACH, \$41.30
- Model 15..... ★NET EACH, \$50.40
- Model 50..... ★NET EACH, \$144.00
- Fig. 285 Fire Extinguisher Cabinets..... DEDUCT 10%
- Fig. 4705 Soda and Acid Extinguisher Recharges
- LIST LESS 50%
- Fig. 4706 Foam Extinguisher Recharges..... LIST LESS 50%
- Fig. 3788 Reddy Fire Extinguishing Fluid..... LIST LESS 50%

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



**Fig. 3080**  
**'FIRST AID'**  
2-1/2 Gallon  
Extinguisher  
Polished Copper  
★NET EACH  
\$7.50



**Fig. 3767**  
**'REDDY'**  
Hand Pump  
Extinguisher  
One Quart  
★NET \$7.00  
1-1/2 Quart  
★NET \$8.50

- Page 79 Fig. 3080 First Aid 2 1/2 Gallon Fire Extinguisher  
Repairs..... LIST LESS 50%  
80 Fig. 3450 "Allen Foam" Extinguisher..... LIST LESS 50%  
Fig. 3601 Portable "Foam" Fire Extinguishers..... LIST LESS 50%  
Figs. 4698-4699 Continuous Foam Production Generators..... DEDUCT 10%  
81 Fire Extinguishers—Entire Page..... LIST LESS 50%  
82 Figs. 3767, 3738, 2194, 4420, 4421..... LIST LESS 50%

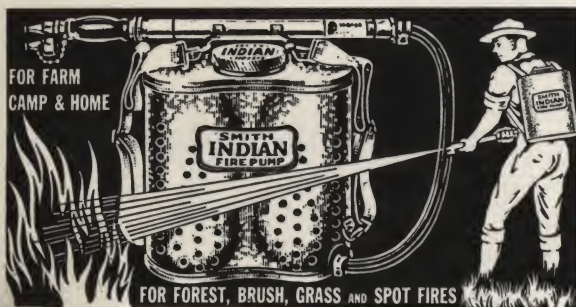


Fig. 4700 'Indian' 5 Gallon Fire Pump.  
Galvanized Tank.....★NET EACH, \$12.00  
Brass Tank.....★NET EACH, \$16.00

- 83 Fig. 97 Cast Brass Hose Nozzles  
1 1/2 by 10 Inches.....★NET EACH, \$0.92  
1 1/2 by 10 Inches.....★NET EACH, \$1.22  
1 1/2 by 12 Inches.....★NET EACH, \$1.34  
2 by 12 Inches.....★NET EACH, \$2.07  
2 1/2 by 12 Inches.....★NET EACH, \$3.35  
Figs. 101 and 99 Fire Hose Couplings.... Prices On Request  
Balance of Page..... DEDUCT 10%

- 84 Entire Page, Valves, Etc..... DEDUCT 10%

- 85 Figs. 139-137 Bowes Hose Racks  
★NET EACH RACK (Without Hose or Equipment)
- | Capacity Feet  | STEEL Gold, or Aluminum Bronze | STEEL Nickel Plated | BRASS Polished | BRASS Nickel Plated |
|--|--------------------------------|---------------------|----------------|---------------------|
| Bowes Regular Hose   |                                |                     |                |                     |
| Feature. Specify Size of Hose to be used, 1 1/4, 1 1/2, 2 or 2 1/2 Inch. |                                |                     |                |                     |
| 50   | \$3.60                         | \$4.50              | \$7.20         | \$8.00              |
| 75   | \$3.95                         | \$4.90              | \$9.00         | \$8.70              |
| 100  | \$4.30                         | \$5.20              | \$8.60         | \$9.40              |
| 150  | \$4.30                         | \$5.20              | \$8.60         | \$9.40              |

- Bowes Underwriters' Approved Semi-Automatic Hose Rack.  
Specify Size of Hose to be used, 1-1/4 or 1 1/2 Inch
- | Capacity Feet | STEEL  | BRASS  |
|---------------|--------|--------|
| 50            | \$5.20 | \$6.20 |
| 75            | \$5.60 | \$6.80 |
| 100           | \$5.95 | \$7.40 |

- Fig. 3684-3683 Automatic Sprinkler Head Stopper  
Discontinued

- Page 86 Fig. 144 Hartford Warehouse Swinging Hose Racks..... LIST LESS 50%  
Fig. 2787 Chicago Fire Hose Racks..... LIST LESS 33 1/2%  
Figs. 145-146 Ryerson Hose Reels..... LIST LESS 50%  
87 Entire Page..... LIST LESS 20%  
88 Figs. 230 to 3861..... DEDUCT 10%  
Fig. 4144 Davy Automatic Fire Escape..... DEDUCT 15%  
88A Fig. 277 Paper Safety Signs Printed Red.... LIST LESS 25%  
Figs. 4135-4136 Glass Safety Signs..... USE DOZEN PRICES  
Figs. 4137-4143 Metal Safety Signs..... USE DOZEN PRICES  
Fig. 4422 Decalomania Transfer Sign.....★NET EACH, \$0.21  
Fig. 4802 Ruby Exit Globes..... DEDUCT 10%  
Fig. 2966 Plain Extension Ladders
- | Length of Each Section | 2 Section Each Section ★NET FOOT | 3 Section Each Section ★NET FOOT |
|------------------------|----------------------------------|----------------------------------|
| 8-16 Feet              | \$0.33                           | \$0.36                           |
| 18 & 20 Feet           | \$0.35                           | \$0.38                           |
| 22 & 24 Feet           | \$0.40                           | \$0.43                           |
- Fig. 3967 Safety Ladder Shoes.....★NET SET OF 2, \$2.00



- 88B SPECIAL. NEW! Royal Step Ladder. Not shown in Allen's Red Book. Rigid construction. Streamlined channel steel back braces. The steps are mortised, rodged and trussed. Handle spreader has a hardwood grip, with 4 Rubber Safety Boots.

Feet	4	5	6	7	8	10
★EACH	\$1.50	\$1.85	\$2.15	\$2.50	\$2.80	\$3.45
Ladders.....	★NET EACH					
Fig.	2963	2964	2965	2966	2967	2968
4 Feet	\$1.50	\$2.30	\$1.45	\$2.90		
5 Feet	\$1.90	\$2.90	\$1.80	\$3.65		
6 Feet	\$2.30	\$3.50	\$2.15	\$4.35		
7 Feet	\$2.65	\$4.00	\$2.50			
8 Feet	\$3.05	\$4.60	\$2.85	\$5.80		
10 Feet	\$3.80	\$5.80	\$3.60	\$7.25		
12 Feet	\$5.40	\$7.65	\$4.95	\$8.70		
14 Feet	\$6.30	\$8.95		\$11.55		
16 Feet	\$7.20	\$10.20		\$13.20		
18 Feet				\$16.45		
20 Feet					\$18.25	

## SPECIAL! Household Step Ladders.

Feet	1 to 5	6 or More
4 Feet	★NET EACH, \$0.84	\$0.80
5 Feet	★NET EACH, \$1.05	\$1.00
6 Feet	★NET EACH, \$1.26	\$1.20
7 Feet	★NET EACH, \$1.47	\$1.40
8 Feet	★NET EACH, \$1.68	\$1.60

Fig. 5290 Alenco Safety Ladder	Platform Height Feet	Over-all Height Feet	★NET EACH
3	5	5	\$4.70
4	6	6	\$5.80
5	7	7	\$7.25
6	8	8	\$8.65
7	9	9	\$10.15
8	10	10	\$11.55
10	12	12	\$13.00
12	14	14	\$15.60
14	16	16	\$20.10
16	18	18	\$22.85
18	20	20	\$25.70







# CONFIDENTIAL DEALERS PRICES

- Page  
130 Malleable Iron Elevator Buckets
- | Fig. | Style | Punched         | Unpunched        |
|------|-------|-----------------|------------------|
| 668  | A     | LIST LESS 40-5% | LIST LESS 40-10% |
| 670  | AA    | LIST LESS 40-5% | LIST LESS 40-10% |
| 669  | B     | LIST LESS 30-5% | LIST LESS 30-10% |
| 671  | C     | LIST LESS 30-5% | LIST LESS 30-10% |
- Minneapolis Super Capacity Buckets.....Prices As Shown
- 131 Entire Page.....Prices As Shown
- 132 Entire Page.....Prices As Shown
- 133 Entire Page.....Prices As Shown
- 138 Figs. 719-720 Take Up Boxes.....LIST LESS 10-10%
- Balance of Page.....Prices As Shown
- 139 Fig. 748 Badger Never Slip Car Mover..★NET EACH, \$6.20
- Fig. 3982 Richtal Car Mover.....★NET EACH, \$4.90
- Balance of Page.....Prices As Shown
- 140 Entire Page.....Prices As Shown
- 149 Entire Page.....Prices As Shown
- 150 Figs. 4812 to 4921 Do-All Paint Spraying Outfits
- DEDUCT 15%



- Page  
154 Fig. 35L Pitcher Spout Pumps
- |                               |                   |
|-------------------------------|-------------------|
| Goulds No. 2, 1 to 5.....     | ★NET EACH, \$1.75 |
| Goulds No. 2, 6 to 11.....    | ★NET EACH, \$1.67 |
| Goulds No. 2, 12 or More..... | ★NET EACH, \$1.60 |

## SPECIAL

- No. 2, 1 to 5.....★NET EACH, \$1.47
- No. 2, 6 to 11.....★NET EACH, \$1.41
- No. 2, 12 or More.....★NET EACH, \$1.36

- No. 2B Brass Cylinder.....★NET EACH, \$3.90

- Repairs For 35L Pump.....LIST LESS 20%
- Plunger and Rod.....LIST LESS 20%
- Pump Bracket.....LIST LESS 20%
- Figs. 2396T-2335T Kitchen Force Pumps.....LIST LESS 30%
- Fig. 6L Cistern Force Pumps.....LIST LESS 30%

- 155 Fig. 749T Force Pump Head.....LIST LESS 30%
- Repairs For 38L Set Length Pump.....LIST LESS 20%

## Fig. 38L Set Length Pump

- |                                     |                   |
|-------------------------------------|-------------------|
| Goulds 3 Foot Iron, 1 to 5.....     | ★NET EACH, \$6.95 |
| Goulds 3 Foot Iron, 6 to 11.....    | ★NET EACH, \$6.50 |
| Goulds 3 Foot Iron, 12 or More..... | ★NET EACH, \$6.25 |

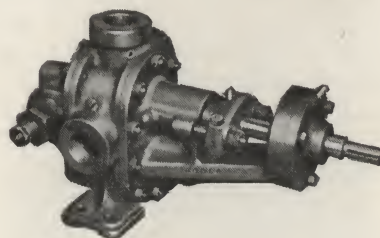
## SPECIAL

- Iron, 1 to 5.....★NET EACH, \$6.25
- Iron, 6 to 11.....★NET EACH, \$5.95
- Iron, 12 or More.....★NET EACH, \$5.75

## 3 Foot Brass Lined Cylinder

- |                |                   |
|----------------|-------------------|
| 1 to 5.....    | ★NET EACH, \$8.70 |
| 6 or More..... | ★NET EACH, \$8.25 |

- Fig. 27T Underground Force Pump Head...LIST LESS 30%



- 156 Fig. 5250 Truck Pumps—
- | Size No. | Pump & Base | LIST EACH Complete |
|----------|-------------|--------------------|
| 2        | \$67.85     | \$88.55            |
| 2A       | \$69.25     | \$90.00            |
| 3A       | \$80.00     | \$100.70           |

- Entire Page.....LIST LESS 30%

- 157 Fig. 3164 Pump Jack
- |                           |                   |
|---------------------------|-------------------|
| 13 by 2 Inch Pulleys..... | ★NET EACH, \$7.20 |
| 15 by 3 Inch Pulleys..... | ★NET EACH, \$8.63 |

- Fig. 768 Pump Jack.....★NET EACH, \$7.20

- Mfrs. 54 Self Oiling Pump Jack

- Fig. 3970M For Motor Drive.....★NET EACH, \$17.00

- Fig. 3970E For Engine Drive.....★NET EACH, \$15.00

- Fig. 2815 Pump Jack.....★NET EACH, \$9.45

- Fig. 3309 Pump Jack.....★NET EACH, \$8.80

- Fig. 3170 Pump Jack.....★NET EACH, \$7.15



Fig. 3969 Lightning Compressed Air Sprayer

★NET EACH, \$2.90

Fig. 3331 Banner Compressed Air Sprayer

All Brass Tank.....★NET EACH, \$6.88

Galvanized Steel Tank.....★NET EACH, \$4.25

151 Fig. 4649 Hudson Perfection Air Sprayer

Galvanized Tank.....★NET EACH, \$4.50

Copper Tank.....★NET EACH, \$7.25

Fig. 4650 Hudson Du-More Air Sprayer

Galvanized Tank.....★NET EACH, \$10.50

Copper Tank.....★NET EACH, \$15.95

Fig. 4651 Hudson Spray Pump

Complete.....★NET EACH, \$4.80

Fig. 4652 Hudson Barrel Spray Pump

Complete.....★NET EACH, \$9.35

Less Discharge Equipment.....★NET EACH, \$7.80

Fig. 4653 Hudson Wheel Barrow Sprayer

Complete.....★NET EACH, \$24.60

Less Air Tank.....★NET EACH, \$16.25

Figs. 2019, 3627, 2014 White Washing & Cold Water Spraying

Machines.....Prices As Shown

152 Little Giant Bucket Spray Pump

Fig. 756 Standard Model.....LIST EACH, \$4.50

Fig. 757 Lever Handle.....LIST EACH, \$6.00

ABOVE.....LIST LESS 30%

Fig. 3865 Tin Sprayer.....★NET EACH, \$0.17

Fig. 759 Imperial Spray Nozzle.....★NET EACH, \$0.35

Fig. 552M Vermorel Spray Nozzle.....★NET EACH, \$0.75

Fig. 758 Bordeaux Spray Nozzle.....★NET EACH, \$0.75

Fig. 4315 Golden Automatic Spray Nozzle

★NET EACH, \$1.12

Fig. 3866 Sturdy Spray Pump.....★NET EACH, \$3.00

Fig. 3867 Savol Sprayer.....★NET DOZEN, \$9.75

Fig. 3868 Powder Duster.....★NET DOZEN, \$8.25

153 Fig. 752 Allen's Thresher Tank Pump.....LIST LESS 30%

Fig. 762 Plain Transfer Tin Pumps.....LIST LESS 30%

Fig. 754 Myers Double Acting Force Tank Pump

LIST LESS 20%

Figs. 1901, 453H and 1902 Bracket Pumps.....LIST LESS 30%

Have you looked through this Discount Sheet for the "SPECIALS"?

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

Page 158 Fig. 3326 Stover Pump Jack  
 Style 18 For Engine.....LIST EACH, \$12.55  
 Style 18-1/2 For Motor.....LIST EACH, \$12.55  
**DISCOUNT, Jack Only.....ABOVE LISTS LESS 30%**

Fig. 4611 Stover Pump Jack  
 Models 22, 23, 22B and 23B are discontinued.

4611—77. FOR ENGINE DRIVE WITH FLAT BELT.  
 10 by 2 inch pulley.....LIST EACH, \$20.95

4611—77A. WITH 1/3 HORSE POWER ELECTRIC  
 MOTOR, single phase, 110-120 volt. V-belt drive  
 LIST EACH, \$56.25

4611—77B. WITH 1/2 HORSE POWER ELECTRIC  
 MOTOR, single phase, 110-120 volt. V-belt drive  
 LIST EACH, \$62.20

4611—77C. WITHOUT MOTOR, MOTOR PULLEY or  
 V-Belt. With adjustable base for 1/3 or 1/2 horse power  
 electric motor.....LIST EACH, \$29.35

4611—77D. WITH 3/4 HORSE POWER GASOLINE  
 ENGINE, air-cooled, 1800 R.P.M. With pulleys and  
 V-belt.....LIST EACH, \$89.80

**DISCOUNT, Jack Only, No Pump.....30% OFF**

Fig. 2322 Freezeless Hydrants.....Prices As Shown  
 Fig. 4577 Stock Waterer.....★NET EACH, \$1.90

159 Fig. 1223G Gould's Diaphragm Side Suction Pumps  
 LIST LESS 20%

Fig. 910 Street Washer, 3/4, 1 and 1 1/4 Inch. LIST LESS 35%  
 Balance of Page.....Prices As Shown

160 Figs. 4312A-4312B Roper Water Systems.....DEDUCT 20%

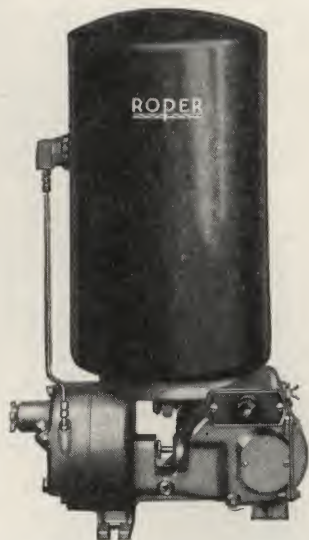
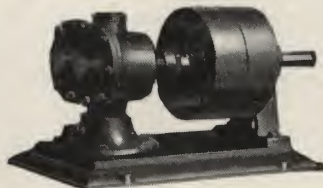


Fig. 4861 Roper SHALLOW WELL Water System  
 With Air Volume Control.....★NET EACH, \$46.25

161 Roper Deep Well Water Systems.....DEDUCT 20%

162 All Pumps, (Except Fig. 770).....LIST LESS 30%  
 Fig. 770 Boiler Test Pump.....LIST NET



163 Fig. 3600M Motor Driven Pump—Less Motor  
 Size 2.....LIST EACH, \$82.80  
 Size 3.....LIST EACH, \$110.00  
 Size 3A.....LIST EACH, \$115.70  
 Size 5.....LIST EACH, \$125.70  
 Size 6.....LIST EACH, \$264.30  
 Entire Page.....LIST LESS 30%

163A Blackmer Rotary Pumps, Entire Page.....LIST LESS 30%

Page 163B Fig. 5191 Flo More Rotary Pumps—Each Without Motor

Size inches	Type	Pump Only	T.&L. Pulleys Base & Belt Shift	V Belt Conn and Base
1	Bronze	\$38.00	\$50.50	\$58.00
1-1/2	Bronze	\$70.00	\$89.00	\$98.00
2	Bronze	\$87.00	\$106.00	\$120.00
1-1/4	Iron	\$25.00	\$37.50	\$45.00
1-1/2	Iron	\$38.00	\$57.50	\$66.00
2	Iron	\$45.00	\$64.50	\$78.00
2-1/2	Iron	\$80.00	\$103.00	\$136.00

**FLO MORE PUMPS.....ABOVE LISTS LESS 10%**

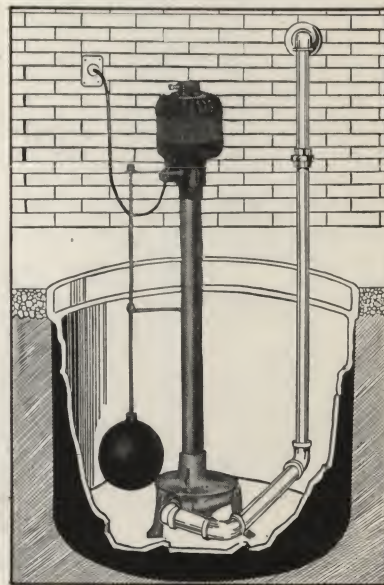


Fig. 5190 Oberdorfer Automatic Electric Sump Pump  
**DEDUCT 20%**

164 Entire Page.....Prices As Shown

165 Fig. 775 Worthington Horizontal Duplex Piston Pumps  
 Diameter

Steam Cylinders	Water Pistons	Length of Stroke In.	Regular Fitted ★NET EACH	Bronze Fitted NET EACH
3	2	3	.....	\$97.00
3-1/2	2-1/4	4	.....	\$109.50
4-1/2	2-3/4	4	.....	\$136.50
5-1/4	3-1/2	5	\$179.50	\$200.50
6	4	6	\$208.50	\$235.50
7-1/2	5	6	\$305.50	\$331.50
7-1/2	4-1/2	10	\$362.50	\$388.50
9	5-1/4	10	\$417.00	\$443.00
10	6	10	\$476.00	\$504.00

Fig. 776 Worthington Horizontal Duplex Piston Pump

4-1/2	3-3/4	4	\$178.00
5-1/4	4-3/4	5	\$227.50
6	5-3/4	6	\$263.00
7-1/2	6	10	\$396.00

166 Copper Plumbing Fittings.....LIST LESS 25%  
 Flanging Tool and Hammers.....LIST LESS 10%



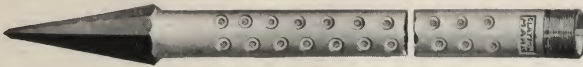
167 Fig. 777 Brass Jacket Drive Well Points  
 All 1-1/4 Inch Sizes.....LIST LESS 49%  
 All Other Sizes.....LIST LESS 40%

Fig. 5442 Flush or Tubular Well Points  
 All 1-1/4 Inch Sizes.....LIST LESS 49%  
 All Other Sizes.....LIST LESS 40%

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



**WASHER WELL POINTS.** Not shown in Allen's Red Book—  
Diameters and lengths not shown will be furnished at proportionate list prices.

Trade No.	Diam. Inches	Length Inches	Net Pounds	LIST DOZEN	LIST DOZEN	LIST DOZEN
				40, 50	80	90
301	1-1/4	24	81	\$36.00	\$52.00	\$60.00
302	1-1/4	30	94	\$46.00	\$64.00	\$75.00
303	1-1/4	36	108	\$56.00	\$76.00	\$90.00
304	1-1/4	42	121	\$66.00	\$88.00	\$105.00
320	1-1/2	24	96	\$48.00	\$65.00	\$78.00
321	1-1/2	30	112	\$60.00	\$80.00	\$96.00
322	1-1/2	36	129	\$72.00	\$95.00	\$114.00
325	2	36	189	\$105.00	\$130.00	\$154.00
326	2	42	207	\$120.00	\$148.00	\$176.00
327	2	48	225	\$135.00	\$166.00	\$198.00
328	2	54	243	\$150.00	\$184.00	\$220.00

1-1/4 Inch Sizes, 1 to 5.....ABOVE LIST LESS 49%  
1-1/4 Inch Sizes, 6 or More.....ABOVE LIST LESS 49-10%  
1-1/2 and 2 Inch Sizes, 1 to 5.....ABOVE LIST LESS 40%  
1-1/2 and 2 Inch Sizes, 6 or More.....ABOVE LIST LESS 40-10%  
Drive Well Shoes  
Fig. 433M Malleable Iron.....LIST LESS 4%  
Fig. 421M Forged Steel.....LIST LESS 18%

Page 168  
Fig. 618M Drive Caps.....LIST LESS 18%  
Fig. 619M Drive Heads.....LIST LESS 4%  
Figs. 600M-604M Earth Augers.....LIST LESS 18%  
Fig. 621M Pipe Drifts.....LIST PLUS 5%  
Figs. 615M-616M Well Drills.....LIST LESS 26%  
Fig. 629M Sand Pumps.....LIST LESS 26%  
Fig. 623M Tool Couplings.....LIST LESS 4%  
Fig. 2632 Artesian Couplings.....LIST LESS 18%  
Fig. 434M Turned Couplings.....LIST LESS 18%  
Fig. 808 Never-Slip Rod Tongs.....★NET EACH, \$1.00

169 Fig. 3736 Hexagon Rod Couplings.....DEDUCT 10%  
Fig. 3009 Demon Grip Rod Couplings.....DEDUCT 10%  
Fig. 799 Reducer Couplings.....LIST LESS 18%  
Fig. 614M Valve Grabs.....★NET EACH, \$2.40  
Fig. 788 Copper Tank Floats  
Size 1.....★NET EACH, \$2.20  
Size 2.....★NET EACH, \$1.62  
Fig. 791 Hose Clevis.....★NET EACH, \$0.50  
Fig. 998 Windmill Tank Valves.....DEDUCT 10%  
Fig. 999 Windmill Tank Valves.....DEDUCT 10%  
Fig. 789 Water Conductors  
1 1/4 Inch.....★NET EACH, \$0.40  
1 1/2 Inch.....★NET EACH, \$0.45  
2 Inch.....★NET EACH, \$0.50  
Fig. 804 Giant Pipe Holder  
Size 1.....★NET EACH, \$2.25  
Size 2.....★NET EACH, \$3.50  
Size 3.....★NET EACH, \$4.00  
Fig. 807 Pump Lifting Clevis.....★NET EACH, \$1.40  
Fig. 626M Taper Taps  
For 1 Inch Pipe.....★NET EACH, \$7.20  
For 1 1/4 Inch Pipe.....★NET EACH, \$9.95  
For 1 1/2 Inch Pipe.....★NET EACH, \$24.00

170 Galvanized Steel Pump Rods—Plain Ends.....DEDUCT 10%  
Fig. 4220 Wood Rod Couplings  
Trade No. 437.....★NET EACH, \$0.43  
Trade No. 438.....★NET EACH, \$0.54  
Trade No. 439.....★NET EACH, \$0.82

Rod Size Inches	For Barrel Diam.	Style A	Style B	Style C
		100 FEET	100 FEET	100 FEET
1-1/8	1-3/8 to 2-1/4	\$7.92	\$13.23	\$14.72
1-5/8	2-1/4 to 2-3/4	\$14.31	\$22.05	\$24.53
1-7/8	2-3/4 to 3-3/4	\$18.45	\$29.97	\$33.30
2-1/4	3-3/4 to 5-3/4	\$41.40	\$61.92	\$68.63
3-1/2	5-3/4 to 8-3/4	\$83.93	\$132.30	\$147.02

Fig. 2617 Forged Sucker Rod Couplings.....DEDUCT 5%  
Windmill Stuffing Box Heads  
Figs. 710M-711M, 1 & 1-1/4 Inch.....LIST LESS 42%  
Figs. 710M-711M, 1-1/2 & 2 Inch.....LIST LESS 45%  
Fig. 712M, 1 & 1-1/4 Inch.....LIST LESS 47%  
Fig. 712M, 1-1/2 & 2 Inch.....LIST LESS 50%  
Fig. 713M, 1-1/4 Inch.....LIST LESS 48%  
Fig. 713M, 1-1/2 Inch.....LIST LESS 47%  
Fig. 713M, 2 Inch.....LIST LESS 49%

171 All Pump Cylinders.....LIST LESS 25%  
**SPECIAL! All Iron 3 x 10 Inch Cylinder**  
1 to 5.....★NET EACH, \$1.70  
6 or More.....★NET EACH, \$1.65

Page 172 Entire Page.....Prices On Request

173 Well Cylinders.....LIST LESS 20%

174 Wrought Iron Tubular Well Cylinders  
Fig. 440M.....LIST LESS 15%  
Fig. 441M.....LIST NET

175 Fig. 448M Artesian Cylinders.....LIST LESS 12%

176 Fig. 444M All-Brass Flush Cap Artesian Well Cylinders  
LIST LESS 15%  
Balance of Page.....Prices As Shown

177 Fig. 496M Gum Packers.....LIST LESS 4%  
Fig. 451M Seating Tools.....LIST LESS 18%  
Fig. 495M Well Packers.....LIST LESS 18%  
Fig. 498M Well Seals.....LIST LESS 27%  
Fig. 2782 Pump Stands or Floor Flanges  
For 4 Inch Pipe Tap.....★NET EACH, \$1.10  
For 4 1/4 Inch Pipe Tap.....★NET EACH, \$1.35  
For 5 Inch Pipe Tap.....★NET EACH, \$1.60  
For 6 Inch Pipe Tap.....★NET EACH, \$1.80

178 Figs. 3724 to 474M Tubular Well Valves  
★NET EACH PIECE  
Size, Inches 2 2 1/2 3 4 6  
Check.....\$1.70 \$2.70 \$4.00 \$8.10 \$18.70  
2 Leather.....\$1.70 \$2.70 \$4.00 \$8.10 \$18.70  
4 Leather.....\$2.55 \$4.10 \$5.80 \$11.50 \$23.80  
Fig. 703M Rubber Packers.....LIST LESS 24%  
Fig. 870M Bronze Valve Balls.....LIST LESS 26%  
All Brass Bronze Ball Tubular Well Valves  
★NET EACH PIECE  
Size, Inches 2 2 1/2 3 4  
Fig. 485M = 2 Leather.....\$2.12 \$3.40 \$5.10 \$12.75  
Fig. 486M = Ball Check.....\$2.12 \$3.40 \$5.10 \$12.75  
Fig. 487M = 4 Leather.....\$2.98 \$5.10 \$7.23 \$17.85

Bremer Tubular Well Valves  
Fig. 478M Plunger.....★NET EACH, \$1.48  
Fig. 479M Check.....★NET EACH, \$1.48  
Fig. 481M Check.....★NET EACH, \$2.00  
Fig. 3730 Valve Check.....LIST LESS 18%  
Fig. 3731 Check Valve.....LIST LESS 18%  
Fig. 3732 Check Valve.....LIST LESS 18%

179 Fig. 049P Sure Tite Foot Valve and Strainer.....LIST LESS 33 1/4%  
Fig. 3581 Dependable Double Poppet Foot Valves  
DEDUCT 10%  
Fig. 4369 Poppet Foot Valves.....DEDUCT 10%  
Fig. 4370 Jenkins Gasoline Foot Valve.....LIST LESS 61%  
Fig. 5168 Brass Foot Valves With Strainer.....LIST LESS 40%  
Fig. 811 Iron Foot Valves.....LIST LESS 55-5%  
Figs. 554M and 556M Suction Pipe Strainers.....DEDUCT 10%  
Figs. 224 and 223 Brass Strainers  
Size, Inches 3/8 1/2 3/4 1 1-1/4  
★NET EACH \$0.35 \$0.35 \$0.35 \$0.45 \$0.60  
Size, Inches 1-1/2 2 2-1/2 3  
★NET EACH \$0.95 \$1.30 \$1.40 \$1.55  
Fig. 826G Suction Strainer.....LIST LESS 10%  
Fig. 625M Globe Strainer.....★NET EACH, \$0.67



Size Inch	Oak, Oil Treated ★NET DOZEN	Regular Oak Tanned ★NET DOZEN
1	\$0.38	\$0.34
1 1/4	\$0.50	\$0.44
1 1/2	\$0.66	\$0.60
1 3/4	\$0.86	\$0.78
2	\$1.02	\$0.92
2 1/4	\$1.10	\$0.99
2 1/2	\$1.32	\$1.19
2 3/4	\$1.48	\$1.33
3	\$1.65	\$1.49
3 1/4	\$2.00	\$1.79
3 1/2	\$2.42	\$2.20
3 3/4	\$2.72	\$2.47
4	\$3.15	\$2.84
4 1/4	\$3.44	\$3.12
4 1/2	\$3.80	\$3.44
5	\$4.80	\$4.35
6	\$6.45	\$5.86



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For	O. D.	Leathers	Regular Oak
Cylinder	Inch	Oak, Oil Treated ★NET DOZEN	Tanned ★NET DOZEN
2	2 1/4	\$0.60	\$0.54
2 1/4	2 3/4	\$0.75	\$0.67
2 3/4	3	\$0.88	\$0.79
3	3 1/4	\$1.04	\$0.94
3 1/4	3 3/4	\$1.15	\$1.03
3 3/4	4	\$1.37	\$1.24
4	4 1/4	\$1.56	\$1.41
4 1/4	4 3/4	\$1.96	\$1.78
5	5 1/4	\$2.48	\$2.25
	5 3/4	\$3.30	\$3.00

Fig. 2146 Black Extra Quality Cup Leathers..DEDUCT 10%  
Fig. 2145 Tank Pump Leathers  
Oak Tanned, Oiled, 5 Inch.....★NET EACH, \$0.40  
Oak Tanned, 5 Inch.....★NET EACH, \$0.37  
Fig. 815 Valve Leather.....★NET POUND, \$1.20

**SPECIAL! Cup Leathers For Electric Household Pumps.**  
Made of leather from hydraulic stock and especially tanned. These special cup leathers satisfactorily withstand the high pressure and fast action of electric pumps.

Outside Diameter Inches	★NET DOZEN	Outside Diameter Inches	★NET DOZEN
3/4	\$0.57	1-5/8	\$1.25
1	\$0.62	1-11/16	\$1.33
1-1/8	\$0.71	1-3/4	\$1.42
1-1/4	\$0.79	1-13/16	\$1.48
1-5/16	\$0.86	1-7/8	\$1.54
1-3/8	\$0.92	1-15/16	\$1.61
1-1/2	\$1.08	2	\$1.67

- 181 Fig. 3158 Round End Pipe Top Tanks.....LIST LESS 50%  
Fig. 835 Round End Angle Top Tanks.....LIST LESS 55%  
Fig. 3159 Square End Pipe Top Tanks.....LIST LESS 50%  
Fig. 841 Square End Pipe Top Tanks.....LIST LESS 55%  
Fig. 3493 Thresher Wagon Tanks.....LIST LESS 40%  
Fig. 3156 Flat Bottom Wagon Tanks.....LIST LESS 40%  
182 Fig. 3160 Round Pipe Top Tanks.....LIST LESS 50%  
Fig. 836 Round Angle Top Tanks.....LIST LESS 55%  
Fig. 842 Round Storage Tanks.....LIST LESS 45%  
Fig. 843 House Tanks.....LIST LESS 45%  
Fig. 840 Troughs and Pans.....LIST LESS 45%  
Fig. 2142 Hog Troughs.....LIST LESS 45%  
Fig. 3492 Hog Troughs.....LIST LESS 45%  
183 Fig. 839 Dipping Tanks.....LIST LESS 40%  
Fig. 3496 Sanitary Wash Sinks.....LIST LESS 33 1/2%  
Fig. 3494 Poultry Troughs.....LIST LESS 45%  
Fig. 837 Watering Troughs.....LIST LESS 45%  
Fig. 1961 Square End Wood Stock Tanks. F.O.B. Factory  
1-1/2 Inch Cypress.....LIST LESS 35%  
1-1/2 Inch Redwood.....LIST LESS 37%  
1-1/2 Inch Fir.....LIST LESS 40%  
2 Inch Cypress.....LIST LESS 15%  
2 Inch Redwood.....LIST LESS 23%  
2 Inch Fir.....LIST LESS 30%  
Fig. 1960 Half Round Wood Stock Tanks. F.O.B. Factory  
1-1/2 Inch Cypress.....LIST LESS 38%  
1-1/2 Inch Redwood.....LIST LESS 40%  
1-1/2 Inch Fir.....LIST LESS 47%  
2 Inch Cypress.....LIST LESS 15%  
2 Inch Redwood.....LIST LESS 26%  
2 Inch Fir.....LIST LESS 35%  
Fig. 2634 Square End Cypress Wagon Tanks. F.O.B. Factory  
LIST LESS 5%

- 184 Fig. 1959 Round Wood Tanks. F.O.B. Factory  
1-1/2 Inch Cypress.....LIST LESS 41%  
1-1/2 Inch Redwood.....LIST LESS 48%  
1-1/2 Inch Fir.....LIST LESS 54%  
2 Inch Cypress.....LIST LESS 14%  
2 Inch Redwood.....LIST LESS 29%  
2 Inch Fir.....LIST LESS 44%  
Fig. 1958 Round Wood Storage Tanks. F.O.B. Factory  
404-809. 1-1/2 Inch Cypress.....LIST LESS 43%  
404-809. 1-1/2 Inch Redwood.....LIST LESS 50%  
404-809. 1-1/2 Inch Fir.....LIST LESS 56%  
404-809. 2 Inch Cypress.....LIST LESS 19%  
404-809. 2 Inch Redwood.....LIST LESS 32%  
404-809. 2 Inch Fir.....LIST LESS 47%  
810-1616. 2 Inch Cypress.....LIST LESS 20%  
810-1616. 2 Inch Redwood.....LIST LESS 33%  
810-1616. 2 Inch Fir.....LIST LESS 48%  
Fig. 3933 Malleable Iron Tank Lugs.....Prices As Shown

- 185 Figs. 3973-3974 Gardner-Denver Air-Cooled Compressors  
★NET With  
Tight Pulley  
Size  
2 x 1-1/4 \$29.00  
2 x 2-1/2 \$35.00  
2-3/4 x 2-1/2 \$40.00  
3 x 3-1/2 \$50.00  
★NET With  
T.&L.Pulley  
\$32.00  
\$40.00  
\$45.00  
\$58.00

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- Fig. 1943 Air Receivers.....Prices On Request  
Fig. 831 Stay Down Tank Heater  
Size No. 2 4 6  
★NET EACH, 1 or 2.....\$8.40 \$10.00 \$12.55  
★NET EACH, 3 or More.....\$7.80 \$9.30 \$11.65

Fig. 4219 Busby Submarine Tank Heater  
With Basket Grate.....★NET EACH, \$7.50  
Without Grate.....★NET EACH, \$6.50  
Fig. 4033 Stover Tank Heater.....★NET EACH, \$20.00

- 186 Fig. 2841 Galvanized Steel Underground Storage Tanks  
Prices As Shown  
Fig. 3768 Obround Steel Tanks.....Prices As Shown  
Fig. 2843 Hinged Fill Pipe Caps.....LIST LESS 37%  
Fig. 3770 Double Tap Bushings.....LIST LESS 37%  
Fig. 3771 Screened Vent Fitting.....LIST LESS 37%  
Packard Welders.....Discontinued

- 187 Fig. 2647 Storage Tanks.....Prices On Request  
Fig. 844B Pressure Tanks.....Prices On Request

- 188 Prestoweld Outfits.....DEDUCT 15%

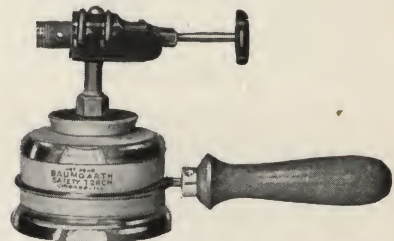
Diameter Inches	★NET 100 POUNDS		
	1 to 49 Pounds	50 to 99 Pounds	100 & Up Pounds
1/16	\$57.63	\$52.63	\$51.63
3/32	\$50.13	\$45.13	\$44.13
1/8	\$46.38	\$41.38	\$40.38
3/16	\$41.13	\$36.13	\$35.13
1/4	\$38.50	\$33.50	\$32.50
3/8	\$36.25	\$31.25	\$30.25

- 189 Entire Page.....DEDUCT 15%

- 189A Fig. 3078 Welding Rods.....DEDUCT 10%  
Figs. 4382 to 4387 Industrial Goggles and Spectacles  
LIST LESS 33 1/2%

- 189B Johnson Bench Gas Furnaces  
Fig. 4742 One Burner.....★NET EACH, \$10.00  
Fig. 4743 Two Burner.....★NET EACH, \$13.50  
Fig. 4744 Three Burner.....★NET EACH, \$25.00  
Fig. 4745 Johnson Gas Melting Pot  
Size Pounds 18 50 150 300 600  
★NET EACH \$7.75 \$15.50 \$35.75 \$49.50 \$82.50  
Steel Hood.....\$17.00 \$18.00 \$21.00  
Balance of Page.....DEDUCT 10%

- 190 Fig. 4581 Clayton & Lambert Gasoline Torch  
1 to 5.....★NET EACH, \$3.05  
6 or More.....★NET EACH, \$2.90  
Fig. 32ACL Clayton & Lambert Gasoline Torch  
1 to 5.....★NET EACH, \$6.07  
6 or More.....★NET EACH, \$5.77  
Fig. 22CL Clayton & Lambert Gasoline Fire Pot  
1 to 5.....★NET EACH, \$8.87  
6 or More.....★NET EACH, \$8.43  
Balance of Page.....Prices As Shown



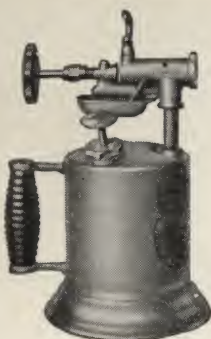
**SPECIAL. Baumgarth 'PUMPLESS' Safety Blow Torch**  
Use naphtha or white gasoline (without Ethyl). It burns 1 hour. Capacity 2 fluid ounces. It will fit in a tool box drawer BUT is large enough to do the work of a quart size blow torch. 6 inch intense, clean flame and heats to 2400 degrees Fahrenheit. There is no soot or carbon monoxide gas in the flame. With self-timing soldering copper and electricians dip pot that is always in the flame. Movable handle. Seamless heavy gauge brass tank. Alloy nozzle and wind guard. It will operate in any position. Not shown in Allen's Red Book. Model 100.....★NET EACH, \$3.50

There are approximately 3700 Items (38000 Sizes and Styles) Listed in Allen's Red Book. SAVE TIME and MONEY, ALWAYS USE ALLEN'S RED BOOK. If you do not find the items you want, order it or write us for information and prices.

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES



Page 191 Fig. 4222 Turner Gasoline Blow Torch  
1 to 5.....★NET EACH, \$3.10  
6 or More.....★NET EACH, \$2.90  
Balance of Page.....Prices As Shown



**SPECIAL!** Turner Gasoline Blow Torch Assortment. Not shown in Allen's Red Book. The assortment consists of:  
2—Mfrs. 2 Handitorch Kits (No. 2— $\frac{1}{4}$  Pint Handitorch, 1 small soldering iron, 1 metal handle wire brush, 1 Small box Acid Core Solder, in cardboard box) List Each Kit, \$1.30.....★NET FOR 2 KITS, \$1.74  
2—Mfrs. 4— $\frac{1}{2}$  Pint Handitorch, List Each, \$1.80, ★NET FOR 2, \$2.40  
2—Mfrs. 4 Handitorch Kits (No. 4— $\frac{1}{2}$  Pint Handitorch, 1 small soldering iron, 1 metal handle wire brush, 1 small box acid core solder, in cardboard box) List Each Kit, \$2.50.....★NET FOR 2 KITS, \$3.35  
2—Mfrs. 150 Standard Pump Type Quart Blow Torches, List Each, \$4.50.....★NET FOR 2, \$6.00  
ASSORTMENT (Total List, \$20.20).....★NET, \$13.49

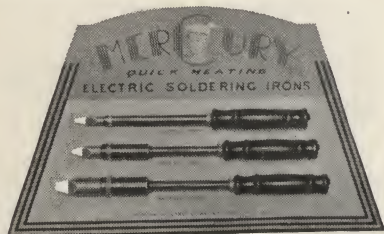


Fig. 5416. Mercury Electric Soldering Irons. Not shown in Allen's Red Book. Listed by the Underwriters' Laboratories. For light, intermittent duty and home use.

Size No.	Watts	Weight Ounces	Tip Diam.	LIST EACH
1	50	8	$\frac{1}{2}$	\$1.25
2	80	11	$\frac{1}{16}$	\$2.25
3	140	18	1	\$3.85

Display Card containing 1 each of Size 1, 2 and 3 Soldering Irons.....LIST EACH DISPLAY CARD, \$7.35  
DISCOUNT.....ABOVE LISTS LESS 33-1/3%

Page 192 Fig. 885 Square Point Soldering Coppers

Weight Pair	POUND 1 to 24 Pounds	25 to 49 Pounds	50 Pounds or More
$\frac{1}{2}$	\$0.55	\$0.49	\$0.46
1	\$0.41	\$0.35	\$0.32
1- $\frac{1}{2}$	\$0.38	\$0.32	\$0.29
2	\$0.37	\$0.31	\$0.28
2- $\frac{1}{2}$	\$0.36	\$0.30	\$0.27
3	\$0.35	\$0.29	\$0.26

DEDUCT.....10%  
Fig. 824 Cast Iron Solder Pots.....Use Dozen Lot Prices  
Fig. 823 Melting Ladles.....Use Dozen Lot Prices  
Balance of Page.....Prices As Shown



193 Fig. 3094 50-50 Wire Solder  
1 Pound Spool.....★NET POUND, \$0.49  
5 Pound Spool.....★NET POUND, \$0.44  
10 Pound Spool.....★NET POUND, \$0.42  
50 Pound Spool.....★NET POUND, \$0.37  
These Prices Are Subject to Change Without Notice.

Fig. 2915 Bar Solder  
Half and Half.....★NET POUND, \$0.35  
40-60.....★NET POUND, \$0.30  
60-40.....★NET POUND, \$0.37  
These Prices Are Subject To Change Without Notice.

**SPECIAL!** Dutch Boy Auto Body Solder. Not Shown in Allen's Red Book.  
8 Ounce Bars.....★NET POUND, \$0.27



**SPECIAL.** Champion ACID CORE Solder. Not shown in Allen's Red Book. Made of high quality virgin metal. Requires only heat to solder, no fluxes or acids. For general use.

2 Ounce Spool. 10c Seller. 12 spools in a carton.....★NET DOZEN SPOOLS, \$0.90  
1 Pound Spool.....★NET POUND, \$0.44

Fig. 2637 Kester Self-Fluxing Wire Solder  
1 Pound Spool.....★NET POUND, \$0.56  
5 Pound Spool.....★NET POUND, \$0.52  
10 Pound Spool.....★NET POUND, \$0.51-1/2  
50 Pound Lots.....DEDUCT 10%  
100 Pound Lots.....DEDUCT 15%  
These Prices Are Subject To Change Without Notice.

Fig. 2637 10 Metal Cans in Display Carton  
Solder-Acid-Core.....★NET CARTON, \$1.50  
Solder-Rosin-Core.....★NET CARTON, \$1.50  
Aluminum-Flux-Core.....★NET CARTON, \$1.50  
Balance of Page.....Prices As Shown

194 All metal prices are subject to change without notice. Orders will be billed at the lowest market prices current when the order is received.

Fig. 5703 Eagle DREADNAUGHT High Speed Bearing Metal.....★NET POUND, \$0.62  
Fig. 5704 Eagle OUTLASTA Medium Speed General Service Bearing Metal.....★NET POUND, \$0.19  
Fig. 5705 Eagle DURABLE Low Speed Bearing Metal.....★NET POUND, \$0.09  
Fig. 874 Atlas Babbitt Metal.....★NET POUND, \$0.22  
Fig. 2936 Common Babbitt Metal  
Grade 1.....★NET POUND, \$0.12  
Grade 2.....★NET POUND, \$0.10-3/4  
Grade 3.....★NET POUND, \$0.08-1/2  
Grade 4.....★NET POUND, \$0.07-1/2

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



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Page 194  
 Con. Fig. 879 Genuine Babbitt Metal.....★NET POUND, \$0.58  
 Fig. 878 Phoenix Babbitt Metal.....★NET POUND, \$0.57  
 Fig. 4760 Genuine XXXX Nickel Babbitt

★NET POUND, \$0.63  
 Fig. 3020 Babbittite.....Prices As Shown  
 Fig. 877 Wing's Graphite Metal.....★NET POUND, \$0.29  
 Fig. 876 Magnolia Metal  
 1 to 111 Pounds.....★NET POUND, \$0.32  
 112 Pounds or More.....★NET POUND, \$0.30  
 Fig. 883 Block Tin.....★NET POUND, \$0.60  
 Fig. 880 Pig Lead.....★NET POUND, \$0.09

195 Sheet Lead.....★NET 100 POUNDS, \$9.25  
 No. 2 Sheet Lead.....★NET 100 POUNDS, \$12.25  
 Fig. 886 Lead Pipe.....★NET 100 POUNDS, \$8.50  
 These Prices Are Subject To Change Without Notice.  
 Balance of Page.....Prices As Shown

196 See Discounts in next column

Lavatory Traps  
 Fig. 3176A 'P' Trap, 1-1/4 Inch.....LIST EACH, \$1.49  
 Fig. 3176B 'P' Trap, 1-1/2 Inch.....LIST EACH, \$1.74  
 Fig. 3183A 'S' Trap, 1-1/4 Inch.....LIST EACH, \$2.10  
 Fig. 3183B 'S' Trap, 1-1/2 Inch.....LIST EACH, \$2.48  
 Fig. 3190 Sink Traps.....LIST EACH, \$1.11  
 Fig. 3177 P.O. Plug.....LIST EACH, \$0.58  
 Fig. 2942A Sink Plug.....LIST EACH, \$0.71  
 Fig. 2942B Sink Plug.....LIST EACH, \$0.73

Fig. 2942T Extra Tailpieces  
 1-1/2 O.D. x 8 Inches.....LIST EACH, \$0.30  
 1-1/2 O.D. x 10 Inches.....LIST EACH, \$0.34  
 1-1/2 O.D. x 12 Inches.....LIST EACH, \$0.39

Fig. 3833 Sink Connection  
 LIST EACH  
 6 Inch 1-1/4 Inch 1-1/2 Inch  
 8 Inch \$0.29 \$0.32  
 10 Inch \$0.34 \$0.38  
 12 Inch \$0.38 \$0.42  
 \$0.42 \$0.46

Extension Tube

Fig. 3834. TO SLIP. LIST EACH  
 6 Inch 1-1/4 Inch 1-1/2 Inch  
 8 Inch \$0.53 \$0.57  
 10 Inch \$0.57 \$0.61  
 12 Inch \$0.61 \$0.65  
 \$0.65 \$0.69

Fig. 4582. TO SOLDER. LIST EACH  
 6 Inch 1-1/4 Inch 1-1/2 Inch  
 8 Inch \$0.36 \$0.40  
 10 Inch \$0.40 \$0.44  
 12 Inch \$0.44 \$0.50

Fig. 2314 Nickel Plated Covers.....LIST EACH, \$0.13  
 Overflow Hole Cover.....LIST EACH, \$0.33  
 Fig. 30B Shower Bath Heads.....List Prices As Shown  
 Fig. 3184 Waste and Overflow.....LIST EACH, \$2.47  
 List Extra for Chain.....\$0.09  
 Fig. 3184W Drain Ell.....LIST EACH, \$0.85  
 Fig. 3186 Overflow Strainer.....LIST EACH, \$0.16  
 Fig. 3539 Waste Pipe Connection  
 1-1/4 Slip, 1-1/4 Casing.....LIST EACH, \$0.56  
 1-1/2 Slip, 1-1/2 Casing.....LIST EACH, \$0.58  
 1-1/2 Slip, 1-1/4 Casing.....LIST EACH, \$0.57

Fig. 3187 Hexagon Slip Nuts  
 Tapped I.P.T. Opening, Inch LIST 100  
 1-1/4 1-1/4 \$13.50  
 1-1/2 1-1/4 \$18.40  
 1-1/2 1-3/8 \$18.40  
 1-1/2 1-1/2 \$16.20  
 2 2 \$21.80

NICKEL PLATED.....ABOVE LISTS LESS 33-1/3%  
 CHROMIUM PLATED.....ABOVE LISTS LESS 20%

Fig. 3383 Andree Basin Wrench  
 1 to 11.....★NET EACH, \$1.25  
 12 or More.....★NET EACH, \$1.10

197 Figs. 896 to 899 Cast Iron Sink Traps.....LIST LESS 20%  
 Figs. 1965 and 3530 Cast Iron Bottle Traps.....LIST LESS 20%  
 Figs. 3528 and 3529 Cast Iron Sink Traps.....LIST LESS 20%  
 Figs. 887 to 893 Standard Weight  
 Lead Traps.....LIST LESS 30%  
 Fig. 861 Sink Coupling.....★NET EACH, \$0.08  
 Fig. 862 Sink Coupling.....★NET EACH, \$0.17  
 Fig. 859 Open Sink Strainer.....LIST LESS 40%

198 Trip Levers  
 Fig. 4557 Push Type.....LIST EACH, \$0.72  
 Fig. 4558 Duce.....LIST EACH, \$0.72  
 ABOVE LIST.....LESS 50%

Fig. 2783 Caps For Ball Cocks (Float Valves)  
 Cap and Washer.....★NET DOZEN, \$0.92  
 Rubber Washer Only.....★NET DOZEN, \$0.07

Fig. 1604 Copper Ball Floats  
 ★NET EACH, \$0.20.....★NET DOZEN, \$1.75



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Fig. 2339 Allen Ball Cock (Float Valve). Heavy weight, elevated ball cock for low down tanks. Specify 5/8 or 3/4 inch shank. With removable seat, specify BRASS or CHINA  
 Lots of 6.....★NET EACH, \$0.75  
 Lots of 12.....★NET EACH, \$0.72  
 Lots of 25.....★NET EACH, \$0.65

Float Valves

Fig. 4554 Ace.....LIST EACH, \$2.30  
 Fig. 4555 Duce.....LIST EACH, \$1.95  
 Fig. 4556 Jack.....Discontinued  
 Fig. 3247.....LIST EACH, \$2.08  
 Fig. 3079.....LIST EACH, \$1.66  
 Fig. 2078.....LIST EACH, \$1.54  
 Fig. 2077.....LIST EACH, \$0.90  
 DISCOUNT.....ABOVE LIST LESS 50%

Fig. 2871 Double Action Push Lever,  
 Complete.....LIST EACH, \$0.72  
 Extra Porcelain Handles.....LIST EACH, \$0.22  
 Extra Handle and Spud.....LIST EACH, \$0.45  
 ABOVE LIST.....LESS 50%



SPECIAL. COLONIAL TANK. Without supply pipe. Not shown in Allen's Red Book. 21 inches wide overall. -1/2 inches deep overall. 17 inches high overall.

1 or 2.....★NET EACH, \$7.35  
 3 or More.....★NET EACH, \$7.10  
 SPECIAL. COLONIAL BOWL. Not shown in Allen's Red Book. 18-1/4 inches long overall. 15 inches high.  
 1 or 2.....★NET EACH, \$4.60  
 3 or More.....★NET EACH, \$4.35

Fig. 4472 Tank Float Rods  
 8 Inch, 1 to 99.....★NET 100, \$4.85  
 8 Inch, 100 or More.....★NET 100, \$3.50  
 10 Inch, 1 to 99.....★NET 100, \$5.50  
 10 Inch, 100 or More.....★NET 100, \$4.00

Leather Washers For Ballcocks  
 Fig. 3791-3 Flat.....★NET 100, \$0.52  
 Fig. 3791-4 Flat.....★NET 100, \$0.52  
 Fig. 3791-5 Cup.....★NET 100, \$1.95

Seats and Washers For Ballcocks  
 5205B Brass Seats.....★NET EACH, \$0.15  
 5205C China Seats.....★NET EACH, \$0.12  
 5205M Monel Metal Seat for Ace.....★NET EACH, \$0.15  
 4630S Small Washer.....★NET EACH, \$0.08  
 4630L Large Washer.....★NET EACH, \$0.10

Closet Screws  
 Fig. 2315A.....★NET 100, \$2.50  
 Fig. 2315B.....★NET 100, \$3.50

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



Page 199 Toilet Seats—All Made of Birch

Fig.	Finish	Stock Inch	Hinges, Plating	1 or 2 ★NET EACH	3 or More ★NET EACH
3100-57	White	1	Nickel	\$1.75	\$1.60
3100-57	White	1	Chromium	\$1.90	\$1.75
3100-57	White	1 1/4	Nickel	\$2.20	\$2.00
3100-57	White	1 1/4	Chromium	\$2.45	\$2.20
2092	Mahogany	1	Nickel	\$1.50	\$1.35
2092	Mahogany	1	Chromium	\$1.60	\$1.45
2092	Mahogany	1 1/4	Nickel	\$1.90	\$1.75
2092	Mahogany	1 1/4	Chromium	\$2.10	\$1.90
2092	Golden Oak	1	Nickel	\$1.50	\$1.35
2092	Golden Oak	1	Chromium	\$1.60	\$1.45
2092	Golden Oak	1 1/4	Nickel	\$1.90	\$1.75
2092	Golden Oak	1 1/4	Chromium	\$2.10	\$1.90
4763	White Celluloid	Sheet	Covered		
		1 1/4	Chromium	\$3.50	\$3.20
4763	Pearl Finish, SPECIFY White, Black, Green or Orchid	1 1/4	Chromium	\$5.25	\$4.75

Fig. 845 Galvanized Range Boilers

Capacity Gallons	Size Inches	Weight	Riveted ★NET EACH	Welded ★NET EACH
30	12x60	Standard	\$6.14	\$5.83
40	14x60	Standard	\$8.66	\$8.20
52	16x60	Standard	\$12.65	\$12.05
66	18x60	Standard	\$18.88	\$17.96
82	20x60	Standard	\$20.91	\$19.93
100	22x60	Standard	\$23.01	\$21.91
120	24x60	Standard	\$26.43	\$25.15
144	24x72	Standard	\$31.55	\$30.05
30	12x60	Extra Heavy	\$7.58	\$7.14
40	14x60	Extra Heavy	\$10.09	\$9.58
52	16x60	Extra Heavy	\$15.35	\$14.59

Fig. 847 Galvanized Expansion Tanks. (Not shown in Allen's Red Book).

	Riveted ★NET EACH	Welded ★NET EACH
10 Gallon Size	\$5.05	\$4.78
15 Gallon Size	\$5.23	\$4.98
20 Gallon Size	\$6.79	\$6.48
26 Gallon Size	\$8.40	\$8.00
42 Gallon Size	\$11.50	\$10.89
Lots of 6 or more assorted.....	DEDUCT 5%	

Figs 150C and 191 Range Boiler Stands....Prices As Shown

Fig. 2175 Boiler Sediment Faucets

1/2 Inch, 1 to 5.....	★NET EACH, \$0.36
1/2 Inch, 6 or More.....	★NET EACH, \$0.33
3/4 Inch.....	★NET EACH, \$0.44

Fig. 4761 Angle Relief Valve

Male Inlet	Female Outlet	★NET EACH
1/2 Inch	1/2 Female	\$1.00
3/4 Inch	1/2 Female	\$1.25

Galvanized Malleable Iron Boiler Fittings

Figs. 1055, 1058 and 1057.....	LIST LESS 54%
Fig. 1056.....	LIST LESS 45%

Fig. 2149 Boiler Tap Plug.....Prices As Shown



200 Fig. 2873 Blue Seal Drain Pipe Solvent....Prices As Shown  
Balance of Page.....DEDUCT 10%



**SPECIAL. KITCHEN SINKS AND CABINETS**—Not shown in Allen's Red Book. The cabinets are carefully constructed. Made from cold rolled steel. Baked white enamel finish. Adjustable base for varying heights. The sinks have an 8 inch back, roll rim, fittings, traps, and strainers are extra. Duo-strainer, \$2.00 NET. Flat strainer, \$0.60 NET. See pages 204 and 205A for Faucets. Colored sinks are made in the acid resisting grade only.

Prices are ★NET EACH.

Drain Board	Size Inches	—With Cabinet— Regular Enamel	Acid Resisting	—Sink Only— Regular Enamel	Acid Resisting
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WHITE—Cabinet With Doors and Drawers					
Double	60x22	\$49.35	\$51.20	\$24.35	\$26.20
At Right	42x20	\$32.30	\$33.25	\$12.50	\$13.45
At Left	42x20	\$32.30	\$33.25	\$12.50	\$13.45
At Right	52x20	\$38.35	\$39.65	\$17.50	\$18.80
At Left	52x20	\$38.35	\$39.65	\$17.50	\$18.80

WHITE—Cabinet With Doors Only					
At Right	42x20	\$25.00	\$25.95	\$12.50	\$13.45
At Left	42x20	\$25.00	\$25.95	\$12.50	\$13.45

**GREEN OR YELLOW**

**Cabinet With Doors and Drawers**

Cabinets can be furnished in green and yellow only (white is shown above). Sinks can be furnished in the following colors: Light Green; Dark Green; Coral Blush (Peach); Orchid; Dark Blue; Yellow; Black; Ivory; Tan; Red; Pink; and Light Blue.

Double	60x22	.....	\$55.45	.....	\$30.45
At Right	42x20	.....	\$35.45	.....	\$15.65
At Left	42x20	.....	\$42.75	.....	\$21.90

**SPECIAL. KITCHEN APRON SINKS.** Not shown in Allen's Red Book. 6 inch apron. 8 inch back. Colors: Light Green; Dark Green; Coral Blush (Peach); Orchid; Dark Blue; Yellow; Black; Ivory; Tan; Red; Pink; and Light Blue. Prices are less fittings, traps, and strainers. Duo-strainer, \$2.00 NET. Flat-strainer, \$0.60 NET. See pages 204 and 205A for Faucets. Prices are ★NET EACH.

Drain Board	Size Inches	White, Regular Enamel	White, Acid Resisting	Colors, Acid Resisting
Double	60x22	\$29.95	\$32.20	\$37.45
At Right	42x20	\$14.75	\$15.85	\$18.45
At Left	42x20	\$14.75	\$15.85	\$18.45
At Right	48x20	\$19.40	\$21.85	\$24.85
At Left	48x20	\$19.40	\$21.85	\$24.85
At Right	52x20	\$24.45	\$26.30	\$30.55
At Left	52x20	\$24.45	\$26.30	\$30.55

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201 Fig. 863 Cess Pool With Hinge Strainer	
6 by 6 Inches.....	★NET EACH, \$0.50
9 by 9 Inches.....	★NET EACH, \$0.90
13 by 13 Inches.....	★NET EACH, \$1.60

Fig. 864 Cess Pool With Loose Strainer	
6 by 6 Inches.....	★NET EACH, \$0.40
9 by 9 Inches.....	★NET EACH, \$0.80
13 by 13 Inches.....	★NET EACH, \$1.50

Fig. 860 Round Bar Strainers.....LIST LESS 60%

Fig. 2945 Cast Iron Drum Trap	
Complete.....	★NET EACH, \$0.90
Cover Only.....	★NET EACH, \$0.35
Fiber Gaskets.....	★NET DOZEN, \$0.18

Fig. 2317 Back Water Valve.....★NET EACH, \$1.65

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



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Page 201 Fig. 2319 Galvanized Round Floor Drain  
 Con. 6 Inch.....★NET EACH, \$0.70  
 8 Inch.....★NET EACH, \$0.85  
 Fig. 2318 Duffy Floor Trap.....★NET EACH, \$1.15



Fig. 5547 Back Water Floor Traps. Not shown in Allen's Red Book. 4 inch outlet. Cast iron body. With hinged cast iron bar strainer. The inside is threaded to receive any length of 2 inch pipe, see illustration at right. The pipe is to be inserted whenever there is danger of the water backing up, it raises the water line, and relieves the entire drain of pressure.

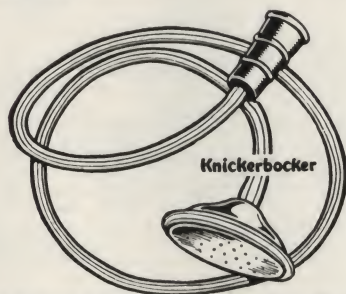
Less Pipe.....★NET EACH, \$0.80  
 With 2 feet galvanized pipe.....\$1.40

Fig. 3202 Cast Tank Valve.....★NET EACH, \$0.65  
 Bulb, Pin and Holder.....Prices As Shown

Fig. 3792 Sewer Gas and Back Water Trap  
 4 Inch.....★NET EACH, \$4.40  
 6 Inch.....★NET EACH, \$5.75

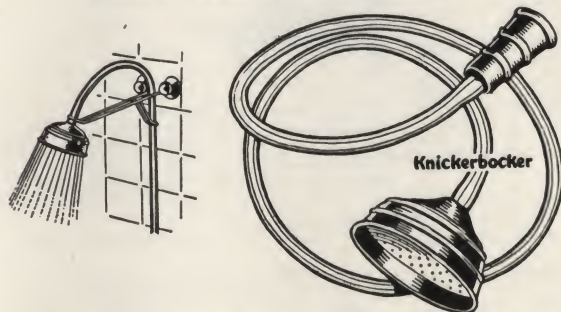
Fig. 3409 Plumbers' Oakum  
 Spun. 50 Pound Bale.....★NET BALE, \$3.75  
 Spun. 20-5 Pound Cartons.....★NET BALE, \$8.75  
 Spun. 1 to 9-5 Pound Cartons..★NET CARTON, \$0.52  
 Rope. 50 Pound Bale.....★NET BALE, \$4.75

202 Fig. 3093 Portable Shower.....DEDUCT 10%



**KNICKERBOCKER 'EVERYBODY'S' SHOWER BATH SPRAY.** A low price spray that is equipped with a patented all rubber faucet connection. All brass spray head with bumper ring. Long life octagon rubber tubing, 3/8x5/64x 54 inches. 1 in a display box.

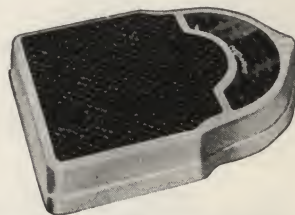
1 to 23.....★NET EACH, \$0.34  
 2 Dozen in Carton or More.....★NET EACH, \$0.30



**KNICKERBOCKER SUCTION CUP PORTABLE SHOWER SPRAY.** With Anti-Splash Sprayhead. A frame with 2 suction cups provides a means of converting this anti-splash hand spray into a portable overhead shower. The sprayhead is completely covered with a soft rubber jacket extending to form a perfect anti-splash shield. All rubber faucet connection. Oversize octagon rubber tubing 3/8x3/32 x60 inches. 1 in a box.

1 to 23.....★NET EACH, \$0.60  
 2 Dozen in Carton, or More.....★NET EACH, \$0.53

Page 202 3210 Offset Flush Pipes  
 Con. 1-1/4 Inch x 5-1/2 Feet.....★NET EACH, \$1.45  
 1-1/4 Inch x 6 Feet.....★NET EACH, \$1.53  
 Fig. 4042 Slip Joint Elbows  
 1-1/4 x 1-1/4 x 4 Inch.....★NET EACH, \$0.31  
 1-1/4 x 1-1/4 x 6 Inch.....★NET EACH, \$0.39  
 1-1/4 x 1-1/4 x 8 Inch.....★NET EACH, \$0.53  
 1-1/2 x 1-1/2 x 4 Inch.....★NET EACH, \$0.45  
 1-1/2 x 1-1/2 x 6 Inch.....★NET EACH, \$0.55  
 Bath Supply Pipes  
 Fig. 3206 Straight.....★NET PAIR, \$1.04  
 Fig. 3215 Offset.....★NET PAIR, \$1.23  
 Basin Connection  
 Fig. 3207 With Elbow.....★NET PAIR, \$0.37  
 Fig. 3216 Straight.....★NET PAIR, \$0.28  
 Fig. 5553 Cone Shaped Rubber Washer For Basin Connection.....★NET EACH, \$0.05  
 Closet Spuds  
 Fig. 758S. 1-1/4 Inch.....★NET EACH, \$0.22  
 Fig. 759S. 1-1/2 Inch.....★NET EACH, \$0.24  
 Fig. 760S. 2 Inch.....★NET EACH, \$0.27



Health-O-Meter Bathroom Scales.

Fig. 4633.....★NET EACH, \$1.85  
 4 or More.....★NET EACH, \$1.60  
 Fig. 4634.....★NET EACH, \$6.25  
 4 or More.....★NET EACH, \$5.50  
 Fig. 4239.....Discontinued

Fig. 3203 Flush Elbows  
 2 x 4 x 6 Inch.....★NET EACH, \$0.41  
 2 x 5 x 7 Inch.....★NET EACH, \$0.52  
 2 x 6 x 8 Inch.....★NET EACH, \$0.66

Fig. 3212 Offset Connections  
 2 x 1 x 6 Inches.....★NET EACH, \$0.52  
 2 x 2 x 6 Inches.....★NET EACH, \$0.59

Fig. 858 Cast Iron Sink Brackets  
 Size 1.....★NET PAIR, \$0.54  
 Size 2.....★NET PAIR, \$0.63

Nickel Plated Brass Sink Bolts  
 1/4 x 1 Inch.....★NET 100, \$3.38  
 1/4 x 2-1/4 Inch.....★NET 100, \$4.05

203 Fig. 4762 Lavatory Faucet  
 Chromium Plated, 1 to 11.....★NET EACH, \$0.96  
 Chromium Plated, 12 or More.....★NET DOZEN, \$9.60

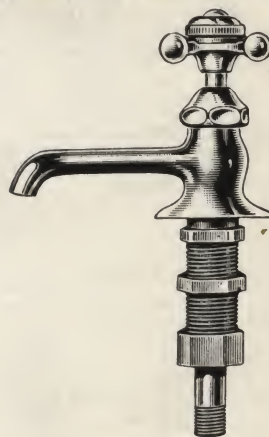


Fig. 1967 Lavatory Faucet  
 Nickel Plated, 1 to 11.....★NET EACH, \$0.90  
 Nickel Plated, 12 or More.....★NET DOZEN, \$9.00  
 Chromium Plated, 1 to 11.....★NET EACH, \$1.08  
 Chromium Plated, 12 or More.....★NET DOZEN, \$10.80

Fig. 4098 Lavatory Faucet  
 Nickel Plated, 1 to 11.....★NET EACH, \$0.90  
 Nickel Plated, 12 or More.....★NET DOZEN, \$9.00  
 Chromium Plated, 1 to 11.....★NET EACH, \$1.08  
 Chromium Plated, 12 or More.....★NET DOZEN, \$10.80

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Fig. 3073 Lavatory Faucet  
Nickel Plated, 1 to 11.....★NET EACH, \$1.20  
Nickel Plated, 12 or More.....★NET DOZEN, \$12.19  
Chromium Plated, 1 to 11.....★NET EACH, \$1.25  
Chromium Plated, 12 or More.....★NET DOZEN, \$12.77

Fig. 3318 Fuller Basin Faucet  
Nickel Plated.....★NET EACH, \$2.40  
Nickel Plated.....★NET DOZEN, \$24.00  
Chromium Plated.....★NET EACH, \$3.00  
Chromium Plated.....★NET DOZEN, \$30.00

Heavy Self-Closing Basin Faucets

Fig. No.	Plated Finish	Ball Bearings	Handle	★NET EACH
4445	Nickel	With	4-Ball	\$2.75
4445	Chromium	With	4-Ball	\$3.05
4445L	Nickel	With	Lever	\$2.75
4445L	Chromium	With	Lever	\$3.05
4445	Nickel	Without	4-Ball	\$2.20
4445	Chromium	Without	4-Ball	\$2.40
4445L	Nickel	Without	Lever	\$2.20
4445L	Chromium	Without	Lever	\$2.40

Fig. 3366 Quick Compression Bath Faucet  
Nickel Plated.....★NET EACH, \$1.65  
Chromium Plated.....★NET EACH, \$1.75  
Couplings.....★NET EXTRA, \$0.42

Fig. 5166 Quick Compression Bath Faucet  
Nickel Plated.....★NET EACH, \$2.70  
Chromium Plated.....★NET EACH, \$3.02

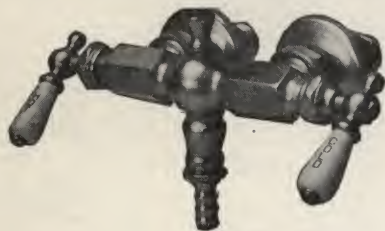


Fig. 2090 Bath Faucet  
Nickel Plated.....★NET EACH, \$2.25  
Chromium Plated.....★NET EACH, \$2.75  
Couplings.....★NET EXTRA, \$0.42

204 Brass Faucets (Fuller Bibbs).....★NET DOZEN

Size Inches	Tail Piece	Brass	Nickel Plated	Chromium Plated
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Fig. 1002 Iron Pipe With Shoulder

1/4	Male	\$9.28	\$10.00	\$10.80
1/2	Male	\$10.72	\$10.80	\$12.32
3/4	Without	\$7.12	\$8.00	\$8.56
1	Without	\$8.40	\$9.28	\$10.16

Fig. 1003 Iron Pipe With Shoulder For Hose

1/4	Male	\$10.72	\$10.80	\$12.32
1/2	Male	\$12.00	\$13.12	\$14.40
3/4	Without	\$8.40	\$9.28	\$10.16
1	Without	\$9.92	\$10.64	\$11.68

Fig. 1018 Solid Flange Female Thread

1/2	Female	\$9.28	\$10.16	\$11.20
3/4	Female	\$11.28	\$11.92	\$13.12

Fig. P1018 Porcelain Handle

1/4	Female	.....	\$8.78	\$9.13
1/2	Female	.....	\$9.92	\$11.08
3/4	Without	.....	\$7.20	\$8.33
1	Without	.....	\$8.33	\$9.48

Compression Faucets.....★NET EACH

Size Inches	Brass	Nickel Plated	Chromium Plated
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Fig. 501 Iron Pipe, With Shoulder

1/4	\$0.50	\$0.53	\$0.56
1/2	\$0.60	\$0.63	\$0.66
1	\$1.50	\$1.64	\$1.72

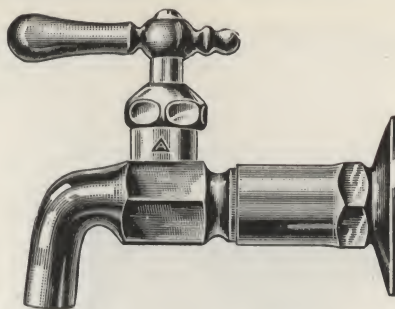
Fig. 503 Iron Pipe, With Shoulder For Hose

1/4	\$0.54	\$0.57	\$0.60
1/2	\$0.64	\$0.67	\$0.70
1	\$1.67	\$1.81	\$1.90

Quick Opening Faucets With Metal Handle (Not Porcelain).....★NET EACH

Size Inches	I.P.T. Inches	Nickel Plated	Chromium Plated
Fig. 2951 Male, Iron Pipe With Shoulder	1/2	\$0.58	\$0.63
Fig. 2960 Solid Flange, Female I.P.T.	1/2	\$0.81	\$0.85
Fig. 2990 Male, Adjustable Screw Flange	1/2	\$1.09	\$1.14

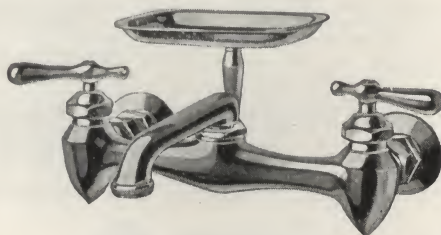
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SPECIAL. Fig. 1017 Fuller Bibbs. Lever Handle.  
Nickel Plated. Not Shown in Allen's Red Book.

Size Inches	With Flange ★NET DOZEN	Without Flange ★NET DOZEN
1/2	\$6.10	\$5.00
5/8	\$7.50	\$6.00
Extra Tails.....	★NET DOZEN, \$1.70	

205 Entire Page.....DEDUCT 10%

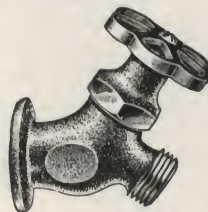


205A Fig. 4288 Double Sink Faucet, Chromium Plated .  
1 to 5.....★NET EACH, \$3.25  
6 or More.....★NET EACH, \$2.95

Fig. 4287 Double Sink Faucet, Chromium Plated  
1 to 5.....★NET EACH, \$2.95  
6 or More.....★NET EACH, \$2.60

Laundry Tray Faucets  
Fig. 5440—Double Tray.....★NET EACH, \$1.60  
Fig. 5441—Triple Tray.....★NET EACH, \$2.95

Wash Tray Faucets  
Fig. 16 Plain.....★NET DOZEN, \$4.44  
Fig. 2162 For Hose.....★NET DOZEN, \$4.92



Figs. 269 and 4289 Sill Cocks—Specify Size  
1 to 11.....★NET EACH, \$0.69  
1 to 5 Dozen.....★NET DOZEN, \$6.90  
6 Dozen or More.....★NET DOZEN, \$5.75

Skinner Bibb Dresser and Reseaters.....Prices As Shown

Fig. 4292.....★NET EACH, \$18.50

Fig. 4290A Skinner Bibb Rescater.....★NET EACH, \$0.85

205B Fig. 2060 Lock Lever Brass Gasoline Faucets—Plain

	1 to 5	6 or More
1/2 Inch	★NET EACH.....\$0.50	\$0.45
3/8 Inch	★NET EACH.....\$0.56	\$0.51
3/4 Inch	★NET EACH.....\$0.61	\$0.55
1 Inch	★NET EACH.....\$1.03	\$1.03
1-1/4 Inch	★NET EACH.....\$1.81	\$1.81
1-1/2 Inch	★NET EACH.....\$2.49	\$2.49

Fig. 1329 Perfection Oil and Molasses Gates

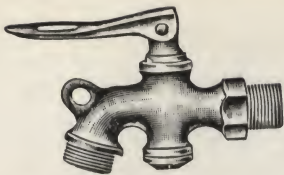
Fig. 3204 Gasoline Drum Faucet

1 to 5.....★NET EACH, \$0.79  
6 or More.....★NET EACH, \$0.72

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Page 205B Fig. 2059 Lock Lever Brass Gasoline Faucets—For Hose

Con.	1/2 Inch.....	★NET EACH, \$0.55
	3/4 Inch.....	★NET EACH, \$0.60
	1 Inch.....	★NET EACH, \$0.66
	1 1/4 Inch.....	★NET EACH, \$1.06
	1 1/2 Inch.....	★NET EACH, \$1.88
	1 3/4 Inch.....	★NET EACH, \$2.53



Fig. 2175 Boiler Sediment Faucets

1/2 Inch, 1 to 5.....	★NET EACH, \$0.36
1/2 Inch, 6 or More.....	★NET EACH, \$0.33
3/4 Inch.....	★NET EACH, \$0.44

Balance of Page..... Prices As Shown

206 Figs. 1597-1599 Brass Stops..... LIST LESS 70%

Figs. 1598-1600 Brass Stops..... LIST LESS 70%

Fig. 3911 Stop and Drain..... LIST LESS 70%

Fig. 1607 Hydrant Clamps..... LIST LESS 40%



Fig. 2324 Bronze Compression Stop and Drain

1/2 Inch, 1 to 11.....	★NET EACH, \$0.39
1/2 Inch, 12 or More.....	★NET EACH, \$0.35
3/4 Inch, 1 to 11.....	★NET EACH, \$0.46
3/4 Inch, 12 or More.....	★NET EACH, \$0.40
1 Inch, 1 to 11.....	★NET EACH, \$1.00
1 Inch, 12 or More.....	★NET EACH, \$0.98

Fig. 3912 Hydrant Stop and Drains..... LIST LESS 60%

Fig. 3913 Hydrant Stop and Drains..... LIST LESS 50%

207 Fig. 3914 Inverted Key Round Way Curb Stops

1/2 to 1 Inch.....	LIST LESS 60-10%
1-1/4 to 2 Inch.....	LIST LESS 65%

Fig. 3915 Tee Handle Round Way Curb Stop

1/2 to 1 Inch.....	LIST LESS 70%
1-1/4 to 2 Inch.....	LIST LESS 70-10%

Fig. 3916 Inverted Key Round Way Curb Stops

1/2 to 1 Inch.....	LIST LESS 60-10%
1-1/4 to 2 Inch.....	LIST LESS 65-5%

Fig. 3917 Plain Ground Key Faucets..... LIST LESS 60-10%

Fig. 3918 Hose Ground Key Faucets..... LIST LESS 60-10%

Fig. 3919 Lead Flange Union Couplings..... LIST LESS 65%

Figs. 3920-3921 Brass Soldering Nipples

3/8 to 2 Inch.....	LIST LESS 70%
2-1/2 Inch and Larger.....	LIST LESS 60%

Fig. 3922 Brass Soldering Unions..... LIST LESS 60-10%

208 Fig. 5254 Hexo Straight Way Stop..... LIST LESS 55%

Fig. 5255 Hexo Straight Way Stop and Drain..... LIST LESS 55%

Fig. 3925 Straight Way Stops..... LIST LESS 65%

Fig. 3926 Straight Way Stop and Drain Socket Head..... LIST LESS 65%

Fig. 3927 Corporation Stops

1/2 to 1 Inch.....	LIST LESS 65%
1-1/4 to 2 Inch.....	LIST LESS 70%

Fig. 3928 Corporation Stops

1/2 to 1 Inch.....	LIST LESS 55%
1-1/4 to 2 Inch.....	LIST LESS 65%

Page 208 Fig. 3929 Hand Wiped Joint Lead Goose Neck

Con.	With Corporation Stops.....	LIST LESS 55%
	Less Corporation Stops.....	LIST LESS 60-5%

209 Entire Page..... Prices As Shown

## 210 Fig. 4766 Modine Unit Heaters

Model 76—For Steam.....	LIST EACH, \$44.70
Model 126—For Steam.....	LIST EACH, \$65.00
Model 152—For Steam.....	LIST EACH, \$72.80
Model 181—For Steam.....	LIST EACH, \$79.20
Model 204—For Steam.....	LIST EACH, \$83.00
Model 238—For Steam.....	LIST EACH, \$87.20
Model 275—For Steam.....	LIST EACH, \$90.60
Model 352—For Steam.....	LIST EACH, \$99.60
Model 440—For Steam.....	LIST EACH, \$106.00
Model 542—For Steam.....	LIST EACH, \$111.90
Model 620—For Steam.....	LIST EACH, \$116.80
Model 710—For Steam.....	LIST EACH, \$126.20
Model 903—For Steam.....	LIST EACH, \$159.20
Model 1163—For Steam.....	LIST EACH, \$206.00
Model 1545—For Steam.....	LIST EACH, \$288.50
Model 2015—For Steam.....	LIST EACH, \$391.00

Model 73W—For Hot Water.....	LIST EACH, \$44.70
Model 212W—For Hot Water.....	LIST EACH, \$72.80
Model 279W—For Hot Water.....	LIST EACH, \$87.20
Model 399W—For Hot Water.....	LIST EACH, \$99.60
Model 497W—For Hot Water.....	LIST EACH, \$106.00
Model 605W—For Hot Water.....	LIST EACH, \$111.90
Model 793W—For Hot Water.....	LIST EACH, \$126.20
Model 1010W—For Hot Water.....	LIST EACH, \$159.20
Model 1303W—For Hot Water.....	LIST EACH, \$206.20

ABOVE LISTS..... LESS 20%

Fig. 4764 Weil Condensation Pump and Receiver..... Prices On Request

## 211 Minneapolis—Honeywell Temperature Controls

3606—L209—A. Surface Aquastat.....	LIST EACH, \$6.00
3606—L204—A. Pressuretrol.....	\$6.00
3606—L208—A. Vaporstat.....	\$10.50
3606—L219—A. Airstat.....	\$6.00
L—216—A. Imersion Aquastat.....	\$7.00
3606M—26—2 Motor.....	\$18.00
4347 Electric Janitor.....	\$27.00
4347—Y17A Electric Clock DeLuxe Janitor.....	\$51.50
4347—Y18A Da-Nite Electric Janitor.....	\$27.00
3606—T42—A Unit Heater Control For Motor.....	\$9.00
3606—L404—B Unit Heater Pressuretrol.....	\$6.00
3606—L409—B Unit Heater Surface Aquastat.....	\$6.00
3606—T205—A Chronotherm Electric Clock Room Thermostat.....	\$41.00

DISCOUNT..... ABOVE LISTS LESS 25%

Fig. 4587 Sheer Heat Control..... ★NET EACH, \$25.68

## 214 Fig. 2920 Sand's Tank Heater

Mfrs. 50 Double Coil.....	★NET EACH, \$7.00
Mfrs. 40 Single Coil.....	★NET EACH, \$4.70
Water Heater Cook.....	★NET EACH, \$0.50

Fig. 4263 Firepot Water Heater

Size 30, 30 gallon	★NET EACH, \$0.94	\$0.74
Size 42, 42 gallon	★NET EACH, \$1.19	\$0.99
Size 66, 66 gallon	★NET EACH, \$3.25	\$2.85

Fig. 4344 Iron Furnace Hairpin Water Heating Coil

1 by 18 inch.....	★NET EACH, \$0.60
1 by 20 inch.....	★NET EACH, \$0.75
1 by 22 inch.....	★NET EACH, \$0.80
1 by 24 inch.....	★NET EACH, \$0.85
1 by 26 inch.....	★NET EACH, \$0.90
1 by 28 inch.....	★NET EACH, \$0.95

B & G Indirect Domestic Water Heaters

30 Gallon Single Coil.....	★NET EACH, \$3.60
40 Gallon Single Coil.....	★NET EACH, \$5.60
52 Gallon Single Coil.....	★NET EACH, \$7.25
70 Gallon Single Coil.....	★NET EACH, \$8.70
90 Gallon Single Coil.....	★NET EACH, \$10.80
100 Gallon Single Coil.....	★NET EACH, \$13.20
120 Gallon Single Coil.....	★NET EACH, \$15.75
150 Gallon Single Coil.....	★NET EACH, \$18.95
160 Gallon Double Coil.....	★NET EACH, \$21.00
200 Gallon Double Coil.....	★NET EACH, \$25.30
300 Gallon Double Coil.....	★NET EACH, \$34.50
400 Gallon Double Coil.....	★NET EACH, \$42.00
500 Gallon Double Coil.....	★NET EACH, \$46.50
600 Gallon Horizontal Tube.....	★NET EACH, \$51.00
800 Gallon Horizontal Tube.....	★NET EACH, \$60.00
1000 Gallon Horizontal Tube.....	★NET EACH, \$100.00
1200 Gallon Horizontal Tube.....	★NET EACH, \$137.00
1600 Gallon Horizontal Tube.....	★NET EACH, \$150.00
2000 Gallon Horizontal Tube.....	★NET EACH, \$195.00
2500 Gallon Horizontal Tube.....	★NET EACH, \$235.00

Balance of Page..... Prices As Shown

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

Page

215 Fig. 2331 Nye Union Valve Nipple Wrench

- Fig. 986 Floor Plates.....LIST LESS 80-10%  
 Fig. 1999 Hot Water Radiator Valve.....LIST LESS 75-10%  
 Fig. 953 Union Radiator Ells.....LIST LESS 75-10%  
 Fig. 2329 Radiator Valve Wood Wheels. ★NET EACH, \$0.04  
 Compression Radiator Air Valves  
 Fig. 960, 1 to 11.....★NET EACH, \$0.10  
 Fig. 960, 12 or More.....★NET DOZEN, \$1.00  
 Fig. 961, 1 to 11.....★NET EACH, \$0.10  
 Fig. 961, 12 or More.....★NET DOZEN, \$1.00  
 Keys for Fig. 961.....★NET DOZEN, \$0.35



Fig. 947  
 Angle  
 Pattern  
 Steam  
 Radiator  
 Valve  
 3/4 Inch  
 ★NET \$0.36  
 1 Inch  
 ★NET \$1.02

## Steam Radiator Valves

- Fig. 947 Angle Pattern.....LIST LESS 80%  
 Fig. 949L Corner Pattern, Left Hand.....LIST LESS 30%  
 Fig. 949R Corner Pattern, Right Hand.....LIST LESS 30%

## SPECIAL! Discs For Radiator Valves. Not Shown in Allen's Red Book.

- 3/4 Inch.....LIST EACH, \$0.10  
 1 Inch.....LIST EACH, \$0.12  
 1-1/4 Inch.....LIST EACH, \$0.18  
 1-1/2 Inch.....LIST EACH, \$0.24  
 DISCOUNTS.....ABOVE LISTS LESS 40%

## Fig. 4416, 4 in 1 Bakelite Radiator Valve Wheel

- 1 to 11.....★NET EACH, \$0.20  
 12 or More.....★NET EACH, \$0.14

## Fig. 2330 Everlasting Radiator Wood Wheels

Prices As Shown



- 216 Fig. 983 Magic Air Valve, 1 to 11.....★NET EACH, \$0.22  
 1 Dozen or More.....★NET EACH, \$0.20  
 6 Dozen or More.....★NET EACH, \$0.17  
 1 Gross or More.....★NET EACH, \$0.16  
 Fig. 3427 "Dixie" Syphon Thermostatic Air Valve  
 1 to 11.....★NET EACH, \$0.60  
 1 Dozen or More.....★NET EACH, \$0.45  
 Fig. 4391 Hoffman Airport Air Valve  
 Angle Pattern.....★NET EACH, \$0.85  
 Straight Shank.....★NET EACH, \$1.35  
 Fig. 1-H Hoffman Siphon Air Valve.....★NET EACH, \$1.60  
 Fig. 2-H Hoffman Siphon Air and Vacuum Valve  
 ★NET EACH, \$2.70  
 Fig. 6-H Hoffman Quick Vent Float Air and Vacuum Valve  
 ★NET EACH, \$8.90  
 Fig. 16-H Hoffman Vacuum Valve.....★NET EACH, \$3.35  
 Fig. 4-H Hoffman Quick Vent Valve.....★NET EACH, \$1.85  
 Figs. 8H and 9H Hoffman Return Line Valve...Discontinued

Page

216 Fig. 4392 Mfrs. 8A Hoffman Bellows Trap

- Con. Angle Pattern.....★NET EACH, \$4.20  
 Swivel Pattern.....★NET EACH, \$4.20  
 Fig. 4393, Mfrs. 37 Hoffman Packless Radiator Valves  
 1/2 Inch.....★NET EACH, \$2.95  
 3/4 Inch.....★NET EACH, \$3.40  
 1 Inch.....★NET EACH, \$4.20  
 1 1/4 Inch.....★NET EACH, \$5.05  
 1 1/2 Inch.....★NET EACH, \$6.30

## Fig. 5170, Mfrs. 14-G Hoffman Kompo-Gage

★NET EACH, \$3.35



**SPECIAL! Dole Air Valve—Angle Type, MFRS. 1933.** Not shown in Allen's Red Book. For venting a radiator of the one or two pipe gravity feed system. It is small, all metal and finished in bright nickel. Each Valve is wrapped in tissue. 12 valves to a standard package.

★NET DOZEN, \$4.80

## 217 Fig. 566 Syphon Automatic Air Valve

- 1 to 11.....★NET EACH, \$0.32  
 12 to 23.....★NET EACH, \$0.30  
 3 Dozen or More.....★NET EACH, \$0.27

## Thermometers

- Fig. 966.....★NET EACH, \$0.60  
 Fig. 967.....★NET EACH, \$0.75

## Fig. 3054 C-Ler-Tite White Pipe Joint Compound

- 12 Tubes on Card.....★NET, \$0.72  
 1/2 Pound Can, 1 to 11.....★NET EACH, \$0.13  
 1/2 Pound Can, 12 or More.....★NET DOZEN, \$1.35



## Smooth-On Iron Cement

### Fig. 974, No. 1 Quick Hardening

### Fig. 974, No. 2 Slow Hardening Hydraulic

- 1 Pound, 1 to 5 Tins.....★NET POUND, \$0.40  
 1 Pound, 6 to 35 Tins.....★NET POUND, \$0.37 1/2  
 1 Pound, 36 or More Tins.....★NET POUND, \$0.35  
 5 Pounds, 1 to 5 Tins.....★NET POUND, \$0.35  
 5 Pounds, 6 or More Tins.....★NET POUND, \$0.32 1/2  
 25 Pound Keg.....★NET POUND, \$0.27 1/2  
 50 Pound Lot.....★NET POUND, \$0.25  
 100 Pound Keg.....★NET POUND, \$0.23 1/4

### Fig. 973 No. 4A for Castings

- 1 Pound Tin.....★NET POUND, \$0.32  
 1 Pound, 6 to 35 Tins.....★NET POUND, \$0.30  
 1 Pound, 36 or More Tins.....★NET POUND, \$0.28  
 5 Pounds, 1 to 5 Tins.....★NET POUND, \$0.28  
 5 Pounds, 6 or More Tins.....★NET POUND, \$0.26  
 25 Pound Keg.....★NET POUND, \$0.22  
 50 Pound Lot.....★NET POUND, \$0.22  
 100 Pound Keg.....★NET POUND, \$0.19

### Fig. 4044 No. 7 Hydraulic

- 1 Pound Tin.....★NET POUND, \$0.24  
 1 Pound, 6 to 35 Tins.....★NET POUND, \$0.22 1/2  
 1 Pound, 36 or More Tins.....★NET POUND, \$0.21  
 5 Pounds, 1 to 5 Tins.....★NET POUND, \$0.21  
 5 Pounds, 6 or More Tins.....★NET POUND, \$0.19 1/4  
 25 Pound Keg.....★NET POUND, \$0.16 1/2  
 50 Pound Lot.....★NET POUND, \$0.16 1/2  
 100 Pound Keg.....★NET POUND, \$0.14 1/4

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES



- Page 217 Fig. 2358 Smooth-On Household Iron Cement No. 1  
 Con. 1 to 11.....★NET CAN, \$0.30  
 12 or More.....★NET CAN, \$0.22½  
 1½ Ounce Can.....★NET CAN, \$0.07½  
 Fig. 977 Pipe Joint Compound.....Prices As Shown  
 Fig. 5229 Key Graphite Paste.....30% OFF

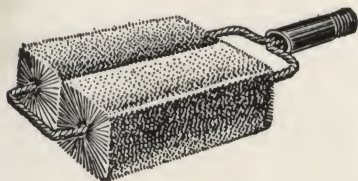
## 218 FLUE CLEANERS AND BRUSHES ARE UNDERSIZE, THEY FIT THE BOILER TUBE WHICH IS MEASURED ON THE OUTSIDE

- Fig. 1350 Ruggles Perfection Flue Cleaner....DEDUCT 10%  
 Fig. 2161 Furnace Brush  
 1 or 2.....★NET EACH, \$0.50  
 3 to 11.....★NET EACH, \$0.43  
 12 or More.....★NET EACH, \$0.35

- Fig. 1348 Spiral Wire Flue Cleaner  
 Fig. 1348B Fine Wire Flue Cleaner

Size Inch	1 or 2 ★NET EACH	3 to 11 ★NET EACH	12 or More ★NET EACH
1½	\$0.30	\$0.27	\$0.24
1¾	\$0.30	\$0.27	\$0.24
2	\$0.30	\$0.27	\$0.24
2¼	\$0.34	\$0.31	\$0.28
2½	\$0.38	\$0.34	\$0.31
2¾	\$0.41	\$0.37	\$0.33
3	\$0.45	\$0.41	\$0.36
3¼	\$0.49	\$0.44	\$0.40
3½	\$0.53	\$0.48	\$0.43
3¾	\$0.56	\$0.50	\$0.45
4	\$0.60	\$0.54	\$0.49

Balance of Page.....Prices As Shown



## 219 Heater Cleaning Fine Wire Brushes

- Fig. 946 Square End, 1¼x4½x4 Inches  
 1 or 2.....★NET EACH, \$0.45  
 3 to 11.....★NET EACH, \$0.39  
 12 or More.....★NET EACH, \$0.33  
 Fig. 3340 Square End, 2¼x6x4½ Inches  
 1 or 2.....★NET EACH, \$0.90  
 3 to 11.....★NET EACH, \$0.83  
 12 or More.....★NET EACH, \$0.75  
 Fig. 3883 Round End, 1¼x4½x6 Inches  
 1 or 2.....★NET EACH, \$0.50  
 3 to 11.....★NET EACH, \$0.45  
 12 or More.....★NET EACH, \$0.39

- Fig. 154 Fusible Plugs  
 Short Pattern.....LIST LESS 47-10%  
 Long Pattern.....LIST LESS 55-10%  
 Balance of Page.....Prices As Shown

- 220 Fig. 1020 Asbestos Air Cell Pipe Covering  
 ½ Inch Thickness.....LIST LESS 71%  
 ¾ Inch Thickness.....LIST LESS 71%  
 1 Inch Thickness.....LIST LESS 66%  
 Fig. 4631 Small-Air-Cell Pipe Covering  
 1 Inch Thickness Only.....LIST LESS 62%  
 Fig. 1014 85% Magnesia Pipe Covering.....LIST LESS 45%  
 Fig. 1004 Wool Felt Sectional Pipe Covering  
 1/2 Inch Thickness.....LIST LESS 66%  
 ¾ Inch Thickness.....LIST LESS 62%  
 1 Inch Thickness.....LIST LESS 55%  
 Fig. 1007 Frost Proof Pipe Covering.....LIST LESS 5-5%  
 Fig. 4348 Insulating Range Boiler Jacket..LIST LESS 50-5%



- Page 221 SPECIAL! Ironset Asbestos Furnace and Retort Cement. Not shown in Allen's Red Book. It will not crack, shrink, bloat nor blister. For packing and sealing joints when mounting castings for furnaces, stoves, heaters, etc. For sealing cracked castings and setting and pointing up fire brick and tile. For cementing smoke pipes. Can be used on hot or cold material.

	In Case	List Pound	List Case
1 Pound Can	36	\$0.18	\$6.48
2 ½ Pound Can	24	\$0.16-½	\$9.90
5 Pound Can	12	\$0.14	\$8.40
10 Pound Can	6	\$0.14	\$8.40
50 Pound Drum	..	\$0.12	\$6.00
100 Pound Drum	..	\$0.11	\$11.00

DISCOUNT.....ABOVE LISTS LESS 50%



- SPECIAL! Fireline Stove and Furnace Lining. Not shown in Allen's Red Book. A fire-resisting material in MOIST, PLASTIC FORM for moulding refractory linings in stoves, ranges, furnaces, boilers, etc., and for lining cracked fire pots and patching stove tile. Withstands temperature of 30001 degrees Fahrenheit.

	In Case	LIST EACH	LIST CWT.
2-½ Pound Can	40	\$0.28¼	\$11.50
5 Pound Can	20	\$0.50	\$10.00
10 Pound Can	10	\$0.90	\$9.00
50 Pound Drum	..	\$4.00	\$8.00
100 Pound Drum	..	\$7.50	\$7.50

Handy Carton Assortment, 100 pounds. Consists of: 12—2-½ pound cans; 6—5 pound cans; and 4—10 pound cans.  
 LIST ASSORTMENT.....\$10.00  
 ABOVE LISTS.....LESS 40%

- Fig. 1621 Asbestos Paper.....Prices As Shown  
 Fig. 3341 Cold Water Flour Paste.....★NET POUND, \$0.09  
 Fig. 4798 Rock Wool.....★NET BAG, \$1.35  
 Fig. 4349 Rutland Asbestos Furnace Cement  
 1 Pound Can.....★NET CAN, \$0.09  
 5 Pound Can.....★NET CAN, \$0.35  
 10 Pound Can.....★NET CAN, \$0.70  
 Fig. 1009 Asbestos Millboard.....Prices As Shown  
 Fig. 1015 Asbestos Cement.....★NET BAG, \$1.75  
 Fig. 3344 Asbestos Retort Cement  
 5 Pound Can.....★NET CAN, \$0.37  
 10 Pound Can.....★NET CAN, \$0.60  
 25 Pound Can.....★NET CAN, \$1.30

- Fig. 4799 Asbestos Air Cell Blocks and Boards  
 Prices As Shown



- 222 Fig. 4350 Rutland Patching Plaster  
 2½ Pound Package.....★NET DOZEN, \$1.80  
 5 Pound Package.....★NET DOZEN, \$3.00  
 15 Pound Package.....★NET DOZEN, \$6.00  
 Fig. 4351 Rutland Concrete Patcher  
 3½ Pound Package.....★NET DOZEN, \$1.80  
 6½ Pound Package.....★NET DOZEN, \$3.00  
 Balance of Page.....Prices As Shown

# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

- Page 223 Fig. 3955 McDaniel Intermittent Steam Trap  
 No. 22.....LIST LESS 30%  
 Nos. 23 to 25.....LIST LESS 33 1/3%  
 Fig. 1615 McDaniel Improved Steam Trap  
 No. 12.....LIST LESS 30%  
 Nos. 13 to 18.....LIST LESS 33 1/3%  
 Fig. 4477 McDaniel Intermittent Inverted Bucket  
 Steam Trap.....LIST LESS 35%  
 Balance of Page.....Prices As Shown

- 224 Fig. 1096 Water Pipe Clamps.....LIST LESS 63%  
 Fig. 1097 Double Strap Water Pipe Clamps.....LIST LESS 15%  
 Fig. 4394 Wire Pipe Hooks.....LIST LESS 45%  
 Fig. 2338 Hanger Ring and Bolt.....LIST LESS 75%  
 Fig. 1946 Extension Bars.....LIST LESS 75%  
 Fig. 3524 Flattened End Lag Screws with Bolts.....LIST LESS 65%  
 Fig. 996 Galvanized Pipe Straps.....★NET POUND, \$0.09  
 DeLuxe Venetian Bathroom Cabinet  
 Size No. Mirror Size LIST EACH  
 1624 16 x 24 Inches \$19.70  
 1826 18 x 26 Inches \$24.30  
 1830 18 x 30 Inches \$30.70  
 2032 20 x 32 Inches \$36.90  
 ABOVE LISTS.....LESS 50%

- 227 Standard Wrought Steel Pipe.....Prices As Shown

- 228 Entire Page.....Prices As Shown

- 229 Pipe Nipples, Refer to List Prices  
 —BLACK— —GALVANIZED—  
 Size, Close and Long Close and Long  
 Inches Short 65% 69% Short 72% 76%  
 1/4 to 6 49% 53% 56% 60%  
 7 to 12



**SPECIAL! Allen Standard Steel Pipe Nipple Assortments.** Each assortment is packed in a corrugated Carton and is attractively labeled. Not Shown in Allen's Red Book.

Nipple Length Inches	No. In 1/4, 3/8, 1/2 & 3/4 Inch Assortments	No. In 1 Inch Assortments	No. In 1-1/4 & 1-1/2 Inch Assortments
Close	20	15	15
1-1/2	10	..	..
2	10	12	..
2-1/2	10	15	10
3	10	2	10
3-1/2	5	3	3
4	10	12	6
4-1/2	5	3	3
5	5	5	5
5-1/2	5	3	3
6	5	5	5
<b>TOTAL</b>	<b>100</b>	<b>75</b>	<b>60</b>

Quantity	Size Inches	★BLACK★NET LOT	★GALVANIZED★NET LOT
100	1/4	\$1.94	\$2.20
100	3/8	\$1.94	\$2.20
100	1/2	\$2.17	\$2.38
100	3/4	\$2.69	\$2.90
75	1	\$2.58	\$2.98
60	1 1/4	\$3.06	\$3.61
60	1 1/2	\$3.72	\$4.38

- 230 Fig. 1032 Tank Nipples  
 Black.....LIST LESS 32%  
 Galvanized.....LIST LESS 50%  
 Fig. 1031 Long Screws.....LIST LESS 56%  
 Fig. 1079C Lock Nuts—Cast Iron.....LIST LESS 30%  
 Fig. 1079M Lock Nuts—Malleable Iron.....LIST LESS 31%  
 Pipe Couplings  
 Fig. 1091 Standard Wrought.....LIST LESS 43%  
 Fig. 5206 Extra Heavy Wrought.....LIST LESS 37%  
 Fig. 5207 Extra Heavy Wrought,  
 With Recessed Ends.....LIST LESS 37%  
 Fig. 1094 XX Hydraulic Wrought.....LIST LESS 37%  
 Fig. 1092 Banded Standard Malleable  
 1/8 to 1 Inch, \*Non-Standard\*.....LIST LESS 18%  
 1-1/4 to 4 Inch.....LIST LESS 31%  
 Fig. 5208 Plain Standard Malleable.....LIST LESS 31%



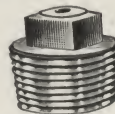
- Page 231 Figs. 1033 to 1035 Cast Iron Elbows, Screwed.....LIST LESS 30%  
 Figs. 1036-1037 Flanged Cast Iron Elbows.....LIST LESS 34%  
 Figs. 1052-1054 Long Sweep Cast Iron Fittings.....LIST LESS 39%



- 232 Figs. 1038 to 1039 Cast Iron Tees, Screwed.....LIST LESS 30%  
 Figs. 2044-1030 Standard Cast Iron Flanged Tees.....LIST LESS 34%  
 Fig. 2924 Galvanized Pipe Menders.....★NET DOZEN, \$1.50

- 233 Figs. 1047-1048 Cast Iron Crosses and "Y" Branches, Screwed.....LIST LESS 30%  
 Figs. 1049 and 1050 Flanged Crosses and Y Branches.....LIST LESS 34%  
 Figs. 1061-1062 Union Tees.....LIST LESS 50%  
 Figs. 1059-1060 Union Elbows.....LIST LESS 50%

- 234 Figs. 1063 to 1073 Malleable Fittings 90° Elbows and Tees, 1/2 Inch and 3/4 Inch Straight sizes only, Black or Galvanized.....LIST LESS 48%  
 All other Fittings.....LIST LESS 31%  
 Non Standard Sizes.....LIST LESS 14%



- 235 Figs. 2780-2781 Cast Iron Plugs.....LIST LESS 48%  
 Fig. 3302 Slotted Pipe Plugs.....LIST LESS 48%  
 Fig. 1087 Cast Iron Plugs  
 Black.....LIST LESS 48%  
 Galvanized.....LIST LESS 54%  
 Fig. 1086 Cast Iron Bushings  
 Black.....LIST LESS 48%  
 Galvanized.....LIST LESS 54%  
 Fig. 1082 Malleable Iron Bushings  
 Black.....LIST LESS 48%  
 Galvanized.....LIST LESS 54%  
 Fig. 1083 Malleable Iron Faced Bushings.....LIST LESS 48%  
 Fig. 1085 Malleable Iron Caps  
 1/4 to 1 Plain.....LIST LESS 31%  
 1/4 to 1 Banded.....LIST LESS 14%  
 1-1/4 to 4 Banded.....LIST LESS 31%  
 Fig. 1084 Malleable Iron Reducers.....LIST LESS 31%  
 Fig. 1043 Cast Iron Caps.....LIST LESS 30%  
 Fig. 1044 Cast Iron Reducers.....LIST LESS 30%

- 236 Fig. 1075 Standard Unions—Malleable Iron.....LIST LESS 44%  
 Fig. 1076 Railroad Unions  
 Black.....LIST LESS 66%  
 Galvanized.....LIST LESS 69%  
 Fig. 4263 Gem Unions—Malleable Iron  
 Black.....LIST LESS 78%  
 Galvanized.....LIST LESS 80%  
 Fig. 1117 Hook Plates.....LIST LESS 8%  
 Fig. 1078 Cast Iron Flange Unions.....LIST LESS 31%  
 Fig. 2646 Malleable Iron Flange Unions.....LIST LESS 60%  
 Fig. 1118 Expansion Hook Plates.....LIST LESS 8%

- 237 Fig. 1080 Common Cast Iron Flanges.....LIST LESS 15%  
 Fig. 1088 Standard Companion Flanges.....LIST LESS 49%  
 Fig. 1089 Standard Cast Iron Blind Flanges.....LIST LESS 49%  
 Fig. 2648 Cast Iron Floor Flanges.....LIST LESS 43%  
 Fig. 1090 Standard Reducing Companion Flanges.....LIST LESS 49%

- 238 Figs. 1099 to 1101 Return Bends—Cast Iron.....LIST LESS 30%  
 Fig. 1102 Return Bends—Cast Iron.....LIST LESS 41%  
 Figs. 1103 to 1105 Return Bends—Malleable Iron.....LIST LESS 31%

- 239 Figs. 1106 to 1108 Branch Tees.....LIST LESS 4%  
 Fig. 1119 Beam Hooks.....LIST LESS 8%  
 Figs. 1109 to 1116 Malleable Railing Fittings.....LIST LESS 7%

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

Page

241A Fig. 532 Rubber Pump Valves Minimum Amount For Each Size Must Equal \$1.25 or More. Prices are for valves 2 inches O.D. or over and 3/8 inch thick or over. Smaller sizes, prices on request. Prices as Shown DEDUCT 10%

241B Fig. 1120 Male Hose Gas Cook

1/2 Inch. . . . .★NET DOZEN, \$2.00  
3/8 Inch. . . . .★NET DOZEN, \$1.87  
1/4 Inch. . . . .★NET DOZEN, \$1.80

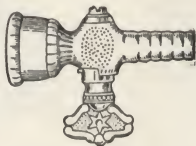


Fig. 1121 Female Hose Gas Cook

1/2 Inch. . . . .★NET DOZEN, \$2.70  
3/8 Inch. . . . .★NET DOZEN, \$1.70  
1/4 Inch. . . . .★NET DOZEN, \$1.58



Fig. 3328 Standard Gas Range Stove Cocks

1 to 11. . . . .★NET EACH, \$0.40  
1 or 2 Dozen. . . . .★NET EACH, \$0.32  
3 Dozen or More. . . . .★NET EACH, \$0.28  
Balance of Page. . . . .Prices As Shown

241C Figs. 2341-2343 Brass Steam Fittings. . . . .LIST LESS 76%

Figs. 2345-2346 Brass Nipples

1/8 to 2 Inch Size. . . . .LIST LESS 80%  
2-1/2 to 6 Inch Size. . . . .LIST LESS 75%

242 Figs. 3794-3799 Extra Heavy Malleable Iron Fittings

Figs. 3800-3804 Extra Heavy Cast Iron Fittings  
LIST LESS 32%

Hancock Union Bonnet Valves. . . . .Revised List Prices

	Fig. 5339	Fig. 5340	Fig. 5341	Fig. 5342
	Globe	Angle	Globe	Angle
Size	Cone	Cone	Plug	Plug
Inches	Seat	Seat	Seat	Seat
1/4	\$5.70	\$5.70	\$5.45	\$5.45
3/8	\$6.10	\$6.10	\$5.85	\$5.85
1/2	\$8.05	\$8.05	\$7.80	\$7.80
3/4	\$10.35	\$10.35	\$9.85	\$9.85
1	\$12.90	\$12.90	\$12.40	\$12.40
1-1/4	\$16.95	\$16.95	\$15.95	\$15.95
1-1/2	\$23.25	\$23.25	\$22.25	\$22.25
2	\$38.75	\$38.75	\$37.75	\$37.75

243 Extra Heavy Forged Steel Unions

Fig.	Kind	Seat	BLACK	UDYLTED
5333	H-B	Steel to Steel	18% OFF	29% OFF
5333	H-B	Brass to Brass	14% OFF	26% OFF
5334	Petro	Steel to Steel	40% OFF	48% OFF
5335	Hydro	Brass to Brass	38% OFF	45% OFF
4297	Mark	Brass to Steel	38% OFF	45% OFF

Fig. 3805 Extra Heavy Flange Unions. . . . .LIST LESS 22%

OIC Composition Disc Brass Valves

Fig. 5336	Globe	Fig. 5337	Angle	Same List.	
Size	1/8	1/4	3/8	1/2	3/4
LIST	\$2.40	\$2.60	\$3.00	\$3.60	\$4.70
Size	1-1/4	1-1/2	2	2-1/2	3
LIST	\$8.60	\$12.00	\$19.00	\$34.00	\$48.00

DISCOUNT. . . . .REVISED LIST LESS 50-5%

Fig. 5338 OIC Brass Gate Valves

Size	LIST	Size	LIST
Inches	EACH	Inches	EACH
3/8	\$2.40	2-1/2	\$19.00
1/2	\$2.60	3	\$28.00
3/4	\$3.30	3-1/2	On Request
1	\$4.40	4	On Request
1-1/4	\$6.00	5	On Request
1-1/2	\$8.00	6	On Request
2	\$11.00		

DISCOUNT. . . . .REVISED LIST LESS 54%

Page

244 Extra Heavy Brass Swing Check Valves

Size	LIST EACH	LIST EACH
Inches	3816 Screwed	3817 Flanged
3/8	\$7.00	.....
1/2	\$7.70	.....
3/4	\$9.90	\$20.00
1	\$10.00	\$26.00
1-1/4	\$14.00	\$36.00
1-1/2	\$19.00	\$54.00
2	\$27.00	\$75.00

Fig. 3816 Screwed. . . . .REVISED LIST LESS 60%  
Fig. 3817 Flanged. . . . .REVISED LIST LESS 54%

Figs. 3818-3819 Extra Heavy Ferrosteel Swing Check Valves

LIST PLUS 20%

Fig. 4264 Extra Heavy Brass Horizontal Check Valves

Size	LIST	Size	LIST
Inches	EACH	Inches	EACH
1/4	\$3.00	1-1/4	\$10.00
3/8	\$3.40	1-1/2	\$13.50
1/2	\$4.20	2	\$21.00
3/4	\$5.50	2-1/2	\$38.00
1	\$7.20	3	\$57.00

DISCOUNT. . . . .REVISED LIST LESS 51%

Extra Heavy Ferrosteel Blow-off Valves

Fig. 1209 Angle Pattern. . . . .LIST PLUS 2%

Fig. 1210 Y Pattern. . . . .Prices On Request

245 Figs. 4589-4590 Extra Heavy Brass, Copper Disc, Globe and Angle Valves

Size	Fig. 4589	Fig. 4590	Extra
Inches	Globe	Angle	Discs
1/4	\$5.00	\$5.00	\$0.20
3/8	\$5.40	\$5.40	\$0.25
1/2	\$6.60	\$6.60	\$0.30
3/4	\$8.00	\$8.00	\$0.35
1	\$10.00	\$10.00	\$0.40
1-1/4	\$14.00	\$14.00	\$0.50
1-1/2	\$20.00	\$20.00	\$0.75
2	\$30.00	\$30.00	\$1.10

REVISED LIST LESS 57%

Figs. 3812-3813 Extra Heavy Brass Wedge Gate Valves

Size	LIST EACH	LIST EACH
Inches	Fig. 3812	Fig. 3813
1/4	Screwed	Flanged
3/8	\$10.00	.....
1/2	\$10.00	.....
3/4	\$12.00	.....
1	\$14.40	.....
1-1/4	\$16.00	\$32.00
1-1/2	\$22.50	\$43.00
2	\$33.00	\$60.00
2-1/2	\$46.00	\$82.00
3	\$80.00	\$130.00
	\$123.00	\$190.00

REVISED LIST LESS 54%

Fig. 3809 Extra Heavy Ferrosteel Globe and Angle Valves

LIST LESS 2%

Figs. 3815 and 3814 Extra Heavy Ferrosteel Wedge Gate Valves. . . . .LIST LESS 13%



Globe  
Fig. 1620



Angle  
Fig. 1625



Horizontal  
Check  
Fig. 1624

246 Fig. 1620-1634 Jenkins Brass Valves, Screwed

LIST EACH—Revised List Prices	1/8	1/4	3/8	1/2	3/4	1
Size, Inches						
Globe or Angle	\$2.40	\$2.60	\$3.00	\$3.60	\$4.70	\$6.60
Horiz. Check	\$2.40	\$2.60	\$2.90	\$3.20	\$4.20	\$5.80
Cross	.....	\$5.00	\$5.80	\$6.40	\$7.00	\$9.20
Swing Check	.....	\$3.80	\$4.00	\$4.40	\$5.80	\$7.80

Size, Inches	1-1/4	1-1/2	2	2-1/2	3
Globe or Angle	\$8.60	\$12.00	\$19.00	\$34.00	\$48.00
Horiz. Check	\$8.00	\$11.00	\$16.00	\$30.00	\$46.00
Cross	\$13.50	\$18.00	\$27.00	\$57.00	\$80.00
Swing Check	\$11.00	\$14.30	\$21.40	\$40.00	\$60.00

REVISED LIST LESS 50%

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# CONFIDENTIAL DEALERS PRICES



Globe Fig. 1630



Check Fig. 1631

Page 246  
Con. Figs. 1630 to 1632 Imitation Jenkins Disc Brass Valves  
LIST LESS 25%

Fig. 2412 "Alenco" Valve Discs.....DEDUCT 10%  
Fig. 1626 Jenkins Bros. Valve Discs  
1/4 to 2 Inch, 1 to 99.....LIST LESS 35%  
1/4 to 2 Inch, 100 or More.....LIST LESS 39%  
2-1/2 to 12 Inch.....LIST LESS 39%

Jenkins Steam Metal Valve Discs

LIST EACH—Revised List Prices

Inch	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2
Each	\$0.30	\$0.30	\$0.35	\$0.40	\$0.50	\$0.55	\$0.65
Inch	2	2-1/2	3	3-1/2	4	4-1/2	5
Each	\$1.00	\$1.90	\$2.70	\$4.20	\$5.00	\$6.20	\$7.20
Inch	6	7	8	9	10	12	14
Each	\$8.00	\$11.50	\$12.50	\$16.30	\$17.50	\$22.80	\$30.60

DISCOUNT.....ABOVE LIST LESS 47%

**SPECIAL! Standard Globe and Standard Gate Valves. Not Shown in Allen's Red Book.**

Inches Size	Globe Valve ★NET EACH	Gate Valve ★NET EACH
1/8	\$0.32	.....
1/4	\$0.32	\$0.52
3/8	\$0.35	\$0.52
1/2	\$0.45	\$0.59
3/4	\$0.57	\$0.74
1	\$0.81	\$1.01
1-1/4	\$1.13	\$1.33
1-1/2	\$1.58	\$1.80
2	\$2.39	\$2.63



No. 3506—Globe



No. 3507—Angle

247 Figs. 3506 to 3507 Crane Renewable Disc Globe and Angle Valves

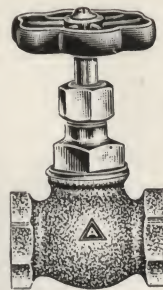
Size, Inches	1/8	1/4	3/8	1/2	3/4	1
LIST EACH	\$2.40	\$2.60	\$3.00	\$3.60	\$4.70	\$6.60
Holder, Disc & Nut	\$0.65	\$0.70	\$0.75	\$0.80	\$0.95	\$1.15
Size, Inches	1-1/4	1-1/2	2	2-1/2	3	
LIST EACH	\$8.60	\$12.00	\$19.00	\$34.00	\$48.00	
Holder, Disc & Nut	\$1.55	\$2.15	\$3.30	\$6.50	\$9.50	
<b>DISCOUNT.....REVISED LIST LESS 50-5%</b>						

DISCOUNT.....REVISED LIST LESS 50-5%

Fig. 2422 Brass Ball Check Screwed Valves

Size	LIST	Size	LIST
Inches	EACH	Inches	EACH
1/8.....	\$1.60	3/4.....	\$4.50
1/4.....	\$1.60	1.....	\$6.00
3/8.....	\$1.75	1-1/4.....	\$9.00
1/2.....	\$3.30		

DISCOUNT.....REVISED LIST LESS 50-5%



Page 247 Figs. 1133 to 4103 Standard Brass Valves...LIST LESS 50%

**SPECIAL! Standard Globe Valves with Fibre Discs. Not Shown in Red Book.**

1/2 Inch.....★NET EACH, \$0.38  
3/4 Inch.....★NET EACH, \$0.44

Figs. 1139 to 1142 Maltese Cross Valves.....LIST LESS 5%

248 **SPECIAL! Horizontal Check Valve With Drip Cock. The supply of these valves is limited—**

3/8 Inch.....★NET EACH, \$0.75  
1/2 Inch.....★NET EACH, \$0.95  
3/4 Inch.....★NET EACH, \$1.35  
1-1/4 Inch.....★NET EACH, \$1.95  
2 Inch.....★NET EACH, \$3.90

Figs. 1145 to 2423 Alenco Brass Regrinding Valves  
DEDUCT 10%

Figs. 1627 to 1629 Asbestos Disc Brass Valves  
LIST LESS 25%

Figs. 1164 to 1165 Needle Point Brass Valves

Size	Feed	1164	2818	1165
Inches	Opening	Globe LIST	Angle LIST	Angle & Union
1/8	1/16	\$2.30	\$2.40	\$3.50
1/4	1/16	\$2.60	\$2.70	\$3.80
3/8	1/8	\$2.90	\$3.00	\$4.50
1/2	3/16	\$3.70	\$3.80	\$6.00
3/4	1/4	\$4.70	\$5.00	\$7.00

DISCOUNT.....ABOVE LISTS LESS 60-10%

Fig. 1026 Screen or Strainer.....LIST LESS 35%

249 Standard Iron Body Valves

Fig. 1158. With Brass Hub. Screwed  
Globe or Angle 2 2-1/2 3  
LIST EACH \$18.00 \$24.00 \$31.00  
DISCOUNT.....REVISED LIST LESS 64%

Figs. 1156-1157. With Yoke, Screwed or Flanged. See Lists in Allen's Red Book.....LIST NET

Figs. 1153 to 2424 Jenkins Iron Body Valves

Globe or Angle, With Brass Hub.....LIST LESS 11%  
Globe or Angle, With Yoke.....LIST PLUS 14%  
Cross.....LIST PLUS 2%  
Horizontal Check, 2 to 3-1/2 Inch.....LIST LESS 17%  
Horizontal Check, 4 to 8 Inch.....LIST PLUS 2%  
Swing Check, Screwed 2 to 3-1/2 Inch.....LIST LESS 48%  
Swing Check, Flanged, 2 to 6 Inch.....LIST LESS 45%  
Swing Check, Flanged, 8 to 12 Inch.....LIST LESS 33%



250 Fig. 1173. Standard Brass Gate Valves. Use Lists in Allen's Red Book.....LIST LESS 55%

Size, Inch	1/4	3/8	1/2	3/4	1
★NET EACH	\$2.20	\$2.40	\$2.75	\$4.00	\$4.00
Size, Inch	1-1/4	1-1/2	2	2-1/2	3
★NET EACH	\$5.30	\$7.15	\$10.45	\$18.00	\$27.20

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# CONFIDENTIAL DEALERS PRICES

Page 250	Brass Gate Valves					
Con.	Figs. 5213, 370J and 47.	Revised List Prices.				
	Size, Inch	1/4	3/8	1/2	3/4	1
	LIST EACH	\$2.40	\$2.40	\$2.60	\$3.30	\$4.40
	Size, Inch	1-1/4	1-1/2	2	2-1/2	3
	LIST EACH	\$6.00	\$8.00	\$12.00	\$19.00	\$28.00
	Fig. 5213	REVISED LIST LESS 54%				
	Jenkins 370-J	REVISED LIST LESS 52%				
	Jenkins 47	REVISED LIST LESS 54%				

Quick Opening Brass Gate Valves					
	Size	LIST EACH	LIST EACH		
	Inches	Fig. 5212	Fig. 1641		
		Cam Action	Sliding Stem		
	1/2	\$8.50	.....		
	3/4	\$9.00	\$9.00		
	1	\$10.00	\$10.00		
	1-1/4	\$12.50	\$12.50		
	1-1/2	\$17.00	\$17.00		
	2	\$24.00	\$24.00		
	2-1/2	\$40.00	\$40.00		
	3	\$57.00	\$57.00		

Fig. 5212 Cam Action.....REVISED LIST LESS 59%  
Fig. 1641 Sliding Stem.....REVISED LIST LESS 59%

Jenkins Iron Body Bronze Mounted Gate Valves  
Fig. 2957 Inside Screw Stationary Spindle.....LIST LESS 15%  
Fig. 4411 Outside Screw and Yoke Rising Spindle.....LIST LESS 25%

Fig. 4765 Jenkins U-Bolt Gate Valves					
	Size	3/8	1/2	3/4	1
	Mfrs. 40A	\$4.00	\$4.20	\$4.80	\$5.50
	Mfrs. 42A	\$3.50	\$3.70	\$4.50	\$5.00
	Size	1-1/2	2	2-1/2	3
	Mfrs. 40A	\$7.00	\$10.00	\$16.00	\$20.00
	Mfrs. 42A	\$7.00	\$10.00	\$17.00	\$21.00
	Mfrs. 41A	\$19.00	\$20.00	\$29.00	\$35.00
	Mfrs. 43A	\$18.00	\$20.00	\$30.00	\$37.00
	Mfrs. 40A	REVISED LISTS LESS 51%			
	Mfrs. 41A	REVISED LISTS LESS 66%			
	Mfrs. 42A	REVISED LISTS LESS 52%			
	Mfrs. 43A	REVISED LISTS LESS 70%			

251 Alenco Lever Throttle Valves  
Fig. 1637, Brass.....DEDUCT 10%  
Fig. 1638, Iron.....DEDUCT 10%

Western Pattern Throttle Valves  
Fig. 1639, Brass.....DEDUCT 10%  
Fig. 1640, Iron Body.....DEDUCT 10%

Fig. 4353, Jenkins Rapid Action Valves					
	Size, Inches	1/2	3/4	1	1-1/4
	LIST EACH	\$14.00	\$17.50	\$20.00	\$24.00
	Extra Disc & Holder	\$1.35	\$1.85	\$2.00	\$2.35
	Size, Inches	1-1/2	2	2-1/2	3
	LIST EACH	\$29.00	\$39.00	\$55.00	\$65.00
	Extra Disc & Holder	\$3.10	\$4.45	\$5.75	\$6.75

DISCOUNT.....REVISED LISTS LESS 50-5%

Figs 4355 and 4356 Jenkins Bronze Quick Opening Valves					
	Size, Inches	1/2	3/4	1	1-1/4
	LIST EACH	\$5.30	\$6.30	\$7.80	\$11.00
	LIST EACH	\$5.30	\$6.30	\$7.80	\$11.00

DISCOUNT.....REVISED LISTS LESS 50-5%  
Fig. 4354 Jenkins Rapid Action Valves  
Size, Inches 1/2 3/4 1 1-1/4 1-1/2 2  
LIST EACH \$10.00 \$12.50 \$14.00 \$16.50 \$21.00 \$27.50  
DISCOUNT.....REVISED LISTS LESS 50-5%

252	Jenkins "Y" or Blow-Off Valves				
	Fig. 1654—Revised List Prices. LIST EACH.				
	Size	3/8	1/2	3/4	1
	Screwed	\$5.80	\$6.40	\$8.50	\$11.00
	Flanged	.....	\$15.00	\$21.00	\$27.00
	Size	1-1/2	2	2-1/2	3
	Screwed	\$18.00	\$26.00	\$49.00	\$68.00
	Flanged	\$40.00	\$60.00	\$83.00	\$110.00

DISCOUNT.....ABOVE LIST PRICES LESS 50%  
Fig. 2710.....LIST LESS 3%

Figs. 4458-4459 Bronze Rising Stem Gate Valves					
	Size Inches	4458 Plain	4459 Locking		
	1/4	\$1.45	.....		
	3/4	\$1.78	.....		
	1	\$2.45	.....		
	1-1/4	\$3.19	.....		
	1-1/2	\$4.39	\$5.87		
	2	\$6.43	\$8.36		
	2-1/2	\$11.43	\$13.92		
	3	\$16.71	\$19.21		

DISCOUNT.....ABOVE LISTS LESS 10%  
Fig. 1653 Alenco Brass Blow-Off Valve.....PLUS 60%

Fig. 1636 Throttle Valve  
Brass, Inch 3/4 1 1-1/4 1-1/2 2 2-1/2  
LIST EACH \$13.50 \$15.50 \$19.00 \$27.00 \$34.00 \$47.00  
Brass.....REVISED LIST LESS 52%  
Iron.....SEE LIST IN RED BOOK—LIST PLUS 2%  
Fig. 300C Brass Swing Joints.....LIST LESS 24%

Page 252	Bronze Gate or Lever Throttle Valves				
Con.	Fig. 4460 Quick Opening				
	Size Inches	3/8	1/2	3/4	1
	★NET EACH	\$3.55	\$3.69	\$3.81	\$5.08
	Sizes Inches	1-1/2	2	2-1/2	3
	★NET EACH	\$8.89	\$12.50	\$21.42	\$31.75
	Fig. 4461 Self Closing				
	Size Inches	2	2-1/2	3	
	★NET EACH	\$13.31	\$22.54	\$33.20	

253 Fig. 1643 Expansion Joints.....LIST LESS 25%  
Fig. 1642 Expansion Joints  
Screwed.....LIST LESS 25%  
Flanged.....LIST LESS 35%  
Balance of Page.....Prices As Shown

254 Figs. 1649 and 1650 Portable Pop Safety Valves.  
For Steam.....LIST LESS 45%  
For Air.....LIST LESS 40%  
Fig. 1652 American Pop Safety Valves.....LIST LESS 20%  
Figs. 2600C to 2605C Brass Relief Valves.....LIST LESS 66%  
Fig. 1648 Standard Safety Valves  
Brass Body. LIST EACH. Revised Lists.  
Size, Inches 1/4 3/8 1/2 3/4  
Cross, Brass \$4.40 \$5.00 \$6.50 \$7.80  
Angle, Brass ..... \$5.00 \$6.50 \$7.80

Brass Body. LIST EACH. Revised Lists.  
Size, Inches 1 1-1/4 1-1/2 2  
Cross, Brass \$9.40 \$14.30 \$18.00 \$25.00  
Angle, Brass \$9.40 \$14.30 \$18.00 \$25.00  
DISCOUNTS, BRASS.....ABOVE LISTS LESS 58%  
IRON BODY. Lists as shown in Allen's Red Book  
LIST LESS 11%  
Balance of Page.....Prices As Shown

255 Figs. 1167 to 1168 Standard Iron Body Back Pressure Valves.....LIST NET  
Balance of Page.....Prices As Shown

256 Fig. 1182 Watson Steam Reducing Valve  
Brass.....LIST LESS 5%  
Iron, 2 Inch.....LIST LESS 5%  
Iron, 2-1/2 Inch and Up.....LIST LESS 20%

Fig. 1183 Watson Diaphragm Reducing Valve  
Brass.....LIST LESS 5%  
Iron, 2 Inch.....LIST LESS 5%  
Iron, 2-1/2 Inch and Up.....LIST LESS 20%

Fig. 1184 Watson Low Pressure Reducing Valve  
Brass.....LIST LESS 5%  
Iron, 2 Inch.....LIST LESS 5%  
Iron, 2-1/2 Inch and Up.....LIST LESS 20%

Fig. 2467 Watson Water Relief Valve.....LIST LESS 33 1/4%

Fig. 1185 Watson Water Reducing Valve  
Brass.....LIST LESS 15%  
Iron.....LIST LESS 20%

Watson Water, Air and Gas Reducing Valves  
Fig. 2158, Style B, 1/2 to 2-1/2 Inch.....LIST LESS 5%  
Fig. 2158, Style B, 3 and 4 Inch.....LIST LESS 20%  
Fig. 2160, Style C.....LIST LESS 10%

257 Entire Page.....Prices As Shown

Do you know that there are numerous SPECIALS shown throughout this Discount Sheet that are not included in Allen's Red Book.

258 Figs. 2520 to 2521S Standard Pattern Iron Cocks.....LIST LESS 8%

Figs. 1205 and 1205A Vulcanized Asbestos, Groove Packed, Iron Cocks. List Prices in Allen's Red Book are withdrawn.  
Size, Inch 1/2 3/4 1 1-1/4 1-1/2  
LIST EACH \$5.00 \$6.50 \$8.00 \$9.00 \$13.00  
Size, Inch 2 2-1/2 3 4  
LIST EACH \$18.00 \$29.50 \$44.00 \$73.00  
DISCOUNT.....ABOVE LISTS LESS 51%

Fig. 1207—THREE WAY Vulcanized Asbestos, Groove Packed, Iron Cocks. List Prices in Allen's Red Book are withdrawn.  
Size, Inch 1/2 3/4 1 1-1/4  
LIST EACH \$9.50 \$10.50 \$14.50 \$20.00  
Size, Inch 1-1/2 2 2-1/2 3  
LIST EACH \$29.00 \$50.00 \$75.00 \$110.00  
DISCOUNT.....ABOVE LISTS LESS 51%

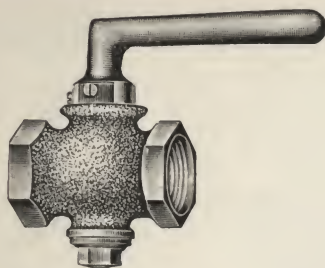
Figs. 2523 and 2524 Wrenches for Steam and Gas Cocks.....LIST LESS 39%

259 Figs. 331 to 1200 Steam Cocks.....LIST LESS 55%  
Figs. 333 to 1201 Gas Service Cocks.....LIST LESS 50-5%  
Fig. 1203 Flat Head, Tee Handle, Lock Gas Service Cocks, Standard Pattern.....LIST LESS 55%  
Fig. 2779 Socket Head, Lever Handle Lock Gas Service Cocks.....LIST LESS 50-5%

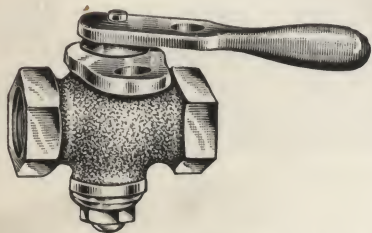
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# CONFIDENTIAL DEALERS PRICES



Page 259	Fig. 1204 Gas Stove Cocks Standard Pattern	
Con.	1/4 Inch.....	★NET EACH, \$0.48
	1/2 Inch.....	★NET EACH, \$0.53
	3/4 Inch.....	★NET EACH, \$0.57
	1 Inch.....	★NET EACH, \$0.68
	1 1/2 Inch.....	★NET EACH, \$0.85



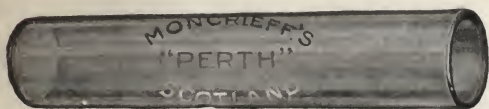
**Fig. 5750 LOCK GAS STOVE COCKS.**

Lever handle. Made of cast brass. For locking with a padlock Not shown in Allen's Red Book.  
 3/8 Inch.....★NET EACH, \$0.53  
 1/2 Inch.....★NET EACH, \$0.62  
 3/4 Inch.....★NET EACH, \$0.73

Fig. 2822 Lever Handle Gas Cock.....DEDUCT 10%

260	Figs. 325 to 330 Brass Air Cocks.....	LIST LESS 50-10-10%
	Figs. 325A to 330A Spring Key Cocks.....	LIST LESS 50-10-10%
	Fig. 2228 Brass Drain Cocks	
	No. 16 1/4 Inch I. P. T.....	★NET EACH, \$0.10
	No. 17 1/2 Inch I. P. T.....	★NET EACH, \$0.14
	No. 18 3/4 Inch I. P. T.....	★NET EACH, \$0.25
	No. 19 1/2 Inch I. P. T.....	★NET EACH, \$0.33
	Figs. 339-340 Lever Handle Brass Priming Cups	
		LIST LESS 70-10%

261	Steam Gauge Cocks	
	Fig. 1250—Double Female.....	LIST LESS 50-10-10%
	Fig. 1251—Male and Female.....	LIST LESS 50-10-10%
	Compression Gauge Cocks	
	Fig. 1245.....	DEDUCT 5%
	Fig. 1246.....	DEDUCT 5%
	Fig. 2909 Low Water Alarm.....	★NET EACH, \$8.00
	Fig. 2911 Renewable High Pressure Gauge Cock	
		★NET EACH, \$4.50
	Fig. 1262 Brass Traction Engine Cylinder Cocks	
		LIST LESS 40%
	Balance of Page.....	Prices As Shown



262	Fig. 1230 Gauge Glass Tubes Genuine Moncrieff, Scotch Made	
		LIST LESS 65%
	Corning, American Made.....	LIST LESS 65-10%
	Fig. 2858 High Pressure Gauge Glasses.....	LIST LESS 60%
	Fig. 3304 Libby Red Line High Pressure Gauge Glasses	
		LIST LESS 40%
	Fig. 1234 "Little Perfection" Glass Tube Cutter	
		★NET EACH, \$0.40
	Fig. 1237 Coleman Gauge Glass Cutter.....	★NET EACH, \$1.75
	Fig. 1233 Chesterton's Glass Tube Cutter	
		★NET EACH, \$1.50
	Gauge Glass Washers	
	Fig. 1231, Square Edge.....	★NET POUND, \$0.70
	Fig. 1231A, Round Edge.....	★NET POUND, \$1.35
	Fig. 1231B.....	★NET POUND, \$1.00
	Fig. 1232 Morse Gauge Glass Preserver....	★NET BOX, \$0.75

Page 263	Water Gauges	
	Fig. 1217.....	★NET EACH, \$1.05
	Fig. 1218.....	★NET EACH, \$1.50
	Fig. 1219.....	★NET EACH, \$1.55
	Fig. 1220.....	★NET EACH, \$2.80
	Figs. 1221 to 1228 Only.....	LIST LESS 35%

Fig. 2560 Safeguard Automatic Water Gauge  
 1/4 Inch Connection.....★NET EACH, \$6.00  
 1/2 Inch Connection.....★NET EACH, \$8.10  
 Fig. 1230A Chain Lever Water Gauges.....LIST LESS 30%  
 Balance of Page.....Prices As Shown

264 Entire Page.....Prices As Shown

265	Thermometers	
	Fig. 966, Straight Stem.....	★NET EACH, \$0.60
	Fig. 967, Angle Stem.....	★NET EACH, \$0.75

Pigtail Siphon  
 Fig. 1257—1 Straight.....★NET EACH, \$0.20  
 Fig. 1257—3 Angle.....★NET EACH, \$0.20  
 Figs. 4771S to 4772A American Thermometers  
 Prices on Request

Balance of Page.....Prices As Shown

266 Fig. 4773 American Thermometers.....Prices As Shown

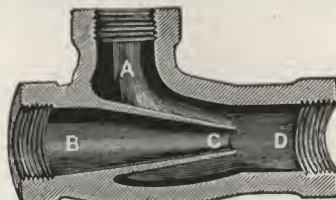


Fig. 1282 McDaniel's Suction Tee  
 Standard, Black.....LIST LESS 25%  
 Standard, Galvanized.....LIST LESS 5%  
 Extra Heavy.....LIST LESS 15%

Fig. 1281 McDaniel Syphon or Water Lifter LIST LESS 25%  
 Fig. 3737 W & M Water Syphon Pump ★NET EACH, \$1.95  
 Fig. 4774 W & M Syphon Pump.....LIST LESS 40%

267	Fig. 1279 XL-96 Ejector or Steam Jet Pump	
		LIST LESS 60-5%
	Fig. 4775 Penberthy Hydraulic Ejector.....	LIST LESS 70-10%
	Fig. 351-P Penberthy Noiseless Water Heaters	
		LIST LESS 40%
	Fig. 4776 Penberthy Water Heater.....	LIST LESS 45%
	Fig. 1285 American Jet Pumps.....	LIST LESS 60%
	Fig. 1277 Blakeslee Jet Pump.....	LIST LESS 50%
	Fig. 1278 Blakeslee Bilge Pump.....	LIST LESS 33 1/2%

268 Entire Page, Cellar Drainers.....DEDUCT 20%

269	Fig. 1212 Bronze Whistle Valves.....	LIST LESS 15%
	Fig. 1211 Steam Whistles.....	LIST LESS 6%
	Fig. 1275 Chicago Automatic Injector.....	LIST LESS 56%
	Fig. 1198 Leader Injector.....	LIST LESS 40%
	Balance of Page.....	Prices As Shown

270	Fig. 1265 Penberthy Automatic Injector.....	LIST LESS 55-5%
	Fig. 2465 Penberthy High Pressure and Hot Water Automatic Injector.....	LIST LESS 55-5%
	Fig. 4768 Penberthy Low Pressure and City Water Supply Automatic Injector.....	LIST LESS 55-5%
	Fig. 1265X Repairs for Penberthy Regular Injector	
		LIST PLUS 10%

271	Fig. 1266 U. S. Automatic Injectors.....	LIST LESS 60%
	Fig. 1266 Repairs for U. S. Injector.....	LIST LESS 45%
	Fig. 1264 Hancock Inspirator.....	LIST LESS 12%

272	Fig. 1299 Detroit Improved Standard Lubricator—Double Connection	
	Pints.....	1/2 1 2 4
	Cyl. In.....	To 10 10-12 12-18 18-30 30-over
	★NET.....	\$10.00 \$10.50 \$12.00 \$15.00 \$23.00

Repair Parts for Fig. 1299.....LIST LESS 15%

273	Fig. 1300 Detroit Improved Standard Lubricator—Single Connection	
	1/4 Pint.....	★NET EACH, \$10.50
	1/2 Pint.....	★NET EACH, \$11.00
	1 Pint.....	★NET EACH, \$12.50
	1 Quart.....	★NET EACH, \$16.25
	Repair Parts for Fig. 1300.....	LIST LESS 15%

274	Figs. 2700-2700M Lubricators.....	DEDUCT 10%
	Fig. 2699 Model D Practical Force-Feed Oil Pump	
		DEDUCT 10%
	Fig. 1294 Hills-McCanna Mechanical Force Feed Lubricators	
		Prices As Shown



# CONFIDENTIAL DEALERS PRICES

- Page 275 Fig. 7E Snap Lever Angle Sight Feed Valves
- |               |                   |
|---------------|-------------------|
| 1/4 Inch..... | LIST EACH, \$2.00 |
| 1/2 Inch..... | LIST EACH, \$2.00 |
| 3/4 Inch..... | LIST EACH, \$2.50 |
| 1 Inch.....   | LIST EACH, \$3.00 |
- ABOVE LISTS.....LESS 40%**  
Balance of Page.....**Prices As Shown**

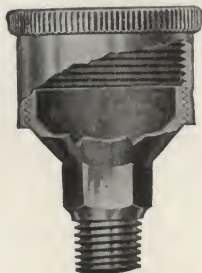
- 276 Fig. 314 Republic Gasoline Engine Lubricator
- |                           |                 |
|---------------------------|-----------------|
| 1 to 11.....              | Prices As Shown |
| 25 or More, Assorted..... | DEDUCT 10%      |
- Fig. 168 Pease Glass Body Oil Cup
- |                           |                 |
|---------------------------|-----------------|
| 1 to 11.....              | Prices As Shown |
| 25 or More, Assorted..... | DEDUCT 10%      |



Fig. 2705A Patriot Gas Engine Lubricator

Size	1 to 24	25 or More
	★NET EACH	Assorted ★NET EACH
1 1/2	\$0.80	\$0.74
2	\$0.88	\$0.79
3	\$0.94	\$0.87
4	\$1.20	\$1.15
5	\$1.27	\$1.27
6	\$1.93	\$1.93

Balance of Page.....**Prices As Shown**



- 277 Figs. 01323-3477 Pawnee Steel Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 20%      |
| 100 or More of a Size..... | DEDUCT 33 1/4%  |

- Fig. 133 Ajax Steel Ratchet Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 10%      |
| 100 or More of a Size..... | DEDUCT 15%      |

- Fig. 118 Polar Pressed Brass Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 10%      |
| 100 or More of a Size..... | DEDUCT 25%      |

No.	1981 Steel	1981B Brass
	100	100
00	\$7.10	\$13.10
00	\$7.90	\$16.25
0	\$9.95	\$22.90
1	\$11.75	\$27.85
2	\$16.00	\$42.40
3	\$22.50	\$71.80

Steel, 1 to 99.....**Above Prices**  
Steel, 100 or More, Assorted.....**DEDUCT 20%**  
Steel, 100 or More of a Size.....**DEDUCT 33 1/4%**  
Brass, 1 to 99.....**Above Prices**  
Brass, 100 or More, Assorted.....**DEDUCT 10%**  
Brass, 100 or More of a Size.....**DEDUCT 25%**

- Fig. 161 Peerless Brass Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| to 99.....                 | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 10%      |
| 100 or More of a Size..... | DEDUCT 25%      |

- Page 277 Fig. 156 Columbia Brass Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 10%      |
| 100 or More of a Size..... | DEDUCT 25%      |

- Fig. 1320S Radio Screw Feed STEEL Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 20%      |
| 100 or More of a Size..... | DEDUCT 33 1/4%  |

- Fig. 1320B Radio Screw Feed BRASS Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 10%      |
| 100 or More of a Size..... | DEDUCT 15%      |

**GREASE CUPS. ODD STOCK.** Sold at these prices while they last.

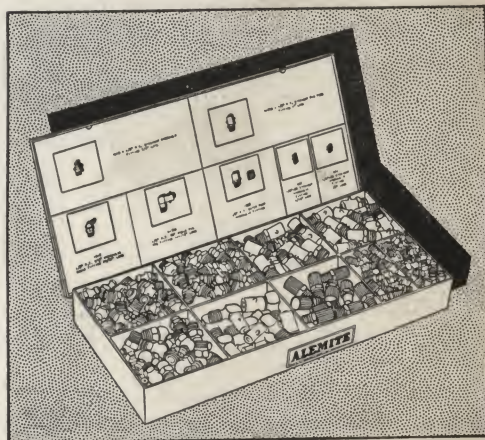
- |   |   |
|---|---|
| Size No. 0, 1/8 inch. Female pipe thread. | Golden Rule Grease Cups.....★NET 100, \$3.90                                  |
| Size No. 1, 1/8 inch. Female Pipe Thread. | Golden Rule Grease Cups.....★NET 100, \$4.80                                  |
| Size No. 4, 3/8 inch. Male Pipe Thread.   | Golden Rule Grease Cups.....★NET 100, \$14.88                                 |
| Size No. 1, 1/4 inch. Male Pipe Thread    | Reliable Brass Grease Cups.....★NET 100, \$18.78                              |
| Size No. 2, 3/8 inch. Male Pipe Thread.   | Steel Grease Cups, similar to Dixie but with copper pin.....★NET 100, \$62.55 |

- 278 Fig. 162B Dixie Automatic Steel Grease Cup
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 20%      |

- Fig. 2119 Artic Automatic Brass Grease Cup
- |                            |                   |
|----------------------------|-------------------|
| Size O, Revised Price..... | ★NET 100, \$88.10 |
| 1 to 99.....               | Prices As Shown   |
| 100 or More, Assorted..... | DEDUCT 10%        |

- Fig. 1953 Nickel Plated Oil Hole Cover
- |                            |                 |
|----------------------------|-----------------|
| 1 to 99.....               | Prices As Shown |
| 100 or More, Assorted..... | DEDUCT 15%      |
- Balance of Page.....**Prices As Shown**

- 279 Entire Page.....**Prices As Shown**



- 280 **SPECIAL!** Alemite Metal Display and Fitting Cabinets. Not shown in Allen's Red Book. The cabinets are small, compact and attractive. The fittings included in these assortments are used as standard equipment on the majority of automobiles and trucks. A chart shows the fitting and list price.

Mfrs. 21-1. 150 Fittings: 25-A-336; 10-A-358; 25-1612; 50-1610; 10-1662; 15-1652; 15-1641.

LIST EACH, \$12.80

★NET EACH, \$7.80

Mfrs. 21-2. 255 Fittings: 50-A-336; 15-A-358; 25-1612; 100-1610; 15-1662; 25-1652; 25-1641.

LIST EACH, \$20.50

★NET EACH, \$12.42

Mfrs. 21-3. 330 Fittings in GLASS TOP Metal Cabinet: 50-A-336; 20-A-358; 25-1652; 25-1641; 100-1610; 50-1612; 10-1627; 25-1662; 25-A-310.

LIST EACH, \$28.25

★NET EACH, \$17.27

**ALEMITE COMBINATION GREASE GUN AND FITTING METAL DISPLAY CABINET.** A brand new, big attractive, better, all metal, advertising display that holds from 4 to 6 guns (wired on) and 6 varieties of fittings in glass jars. The assortment consists of 325 FITTINGS: 50-A-336; 50-A-358; 75-1610; 50-1612; 50-1613; and 50-1662; and 5 HYDRAULIC GREASE GUNS: 1-5256; 1-5585; 1-5586; 1-6550; and 1-6556. The Metal Stand is 22 1/2 inches high, 22 inches wide at the base, (28 inches wide with jars in place).

LIST PRICE, \$57.16

★NET EACH, \$34.78

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



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## Alemite Pin Type Compressors

Mfrs. C600 to 1080 Compressors and Parts

LIST LESS 45%

Mfrs. 1049 Compressor, Not Shown, 14 Ounce, Rigid Connection, LIST \$9.00..... LIST LESS 45%

## Alemite Pin Type Hose

Mfrs. A1039, HP129, A904 and A908A Hose

LIST LESS 45%

A639 Hose, 11 1/4 Inches. LIST \$1.45..... LIST LESS 45%

A1026 Hose, 14 1/4 Inches, With Check Valve, LIST \$1.60..... LIST LESS 45%

## Alemite Pin Type Repair Parts

G42059 Coupling Assembly, Revised LIST \$0.30

LIST LESS 10%

Mfrs. P42058 to A942 Repair Parts..... LIST LESS 10%

Mfrs. 5035, 5541, 5542 Coupling Kits..... LIST LESS 45%

## Alemite Pin Type Fittings

Mfrs. M336 to A501..... List As Shown

A310 1/8 Inch Straight Fitting..... LIST, \$0.05

A336 1/8 Inch Straight Fitting..... LIST, \$0.06

A682 1/8 Inch 25° Fitting..... LIST, \$0.14

A393 1/8 Inch 65° Fitting..... LIST, \$0.16

A339 1/8 Inch 65° Fitting..... LIST, \$0.25

A370 Bushing, For Fittings, 1/4 by 1/8 Inch..... LIST, \$0.10

ABOVE FITTINGS ONLY

Up to 299 Pieces..... LIST LESS 45%

300 Pieces or More..... LIST LESS 50%

## Alemite Gat Guns and Hose

Mfrs. 1054 to 5570..... LISTS AS SHOWN

Mfrs. 5153 Volume Gat Gun..... LIST, \$12.50

Mfrs. 1081 Gat Gun, 21 Ounce, High Pressure..... LIST, \$15.00

Mfrs. 5571 Hose, Button Head for Gat Gun..... LIST, \$8.00

ABOVE GAT GUNS AND HOSE..... LIST LESS 30%

## Alemite Lubricant, Revised Lower Lists

L939 1 Pound Can..... LIST, \$0.25

L900 5 Pound Can..... LIST, \$1.06

L929 10 Pound Can..... LIST, \$1.90

ABOVE LUBRICANT..... LIST LESS 10%

## 281 Push Type Compressors

6556Z & 5585Z Compressor & Parts..... LIST LESS 45%

## Push Type Fittings, Not Shown

Z35A 1/8 Inch Straight Fitting..... LIST, \$0.06

Z360AA 1/8 Inch 30° Fitting..... LIST, \$0.11

Z36AA 1/8 Inch 67 1/2° Fitting..... LIST, \$0.10

Z387AA 1/8 Inch 90° Fitting..... LIST, \$0.11

Z137A 1/8 Inch Straight Fitting..... LIST, \$0.14

Z250AA 1/8 Inch 67 1/2° Fitting..... LIST, \$0.18

1405 to 814 Push Type Drive Fittings

LISTS AS SHOWN

ABOVE FITTINGS

Up to 299 Pieces..... LIST LESS 45%

300 Pieces or More..... LIST LESS 50%

Mfrs. 1010 Push Type Filler Tank..... LIST LESS 10%

## Alemite Hydraulic Compressors

Mfrs. 5256 Compressor, 1 1/4 Pound..... LIST, \$10.00

Mfrs. 5586 Compressor, 9 Ounce, Handle Fill..... LIST, \$6.30

Mfrs. 5585 Compressor, 9 Ounce..... LIST, \$4.00

Mfrs. 6551 Compressor, 5 Ounce..... LIST, \$2.30

ABOVE HYDRAULIC COMPRESSORS..... LIST LESS 45%



## Alemite Hydraulic Fittings

Mfrs. 1610 to 1629..... LISTS AS SHOWN

Up to 299 Pieces..... LIST LESS 45%

300 Pieces or More..... LIST LESS 50%

## Alemite Button Head Compressors & Parts

Couplings and Hose..... LISTS AS SHOWN

Mfrs. C1048 Compressor, 4 Ounce..... LIST, \$4.90

Mfrs. C552 Compressor, 6 Ounce..... LIST, \$7.50

Mfrs. C550 Compressor, 6 Ounce, ACME THREAD..... LIST, \$12.00

Mfrs. 1078 Compressor, 14 Ounce..... LIST, \$12.00

C559 Adapter—For Button Head Coupling..... LIST, \$0.75

1107 Hose, 1/4 I.P.T., 15 Inch..... LIST, \$6.30

1110 Hose, 1/4 I.P.T., 15 Inch..... LIST, \$6.30

1116 Hose, 1/4 I.P.T., 24 Inch..... LIST, \$7.25

G42059 Coupling..... LIST, \$0.30

C1028 Coupling, With Check Valve..... LIST, \$0.45

ABOVE BUTTON HEAD SYSTEM..... LIST LESS 45%

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## Alemite Button Head Fittings

Up to 299 Pieces..... LIST LESS 45%

300 Pieces or More..... LIST LESS 50%

## Alemite Button Head Volume Bucket Gun, 23 1/2 Pounds Capacity

LIST, \$20.00

5405 Hose, 7 Foot for Volume Bucket Gun..... LIST, \$13.75

ABOVE GUN AND HOSE..... LIST LESS 30%

## Alemite Dot Lubricating System

5054 and 5057 Compressors..... LISTS AS SHOWN

Mfrs. 5052 Compressor, 4 Ounce..... LIST, \$4.75

Mfrs. 5055 Compressor, 8 Ounce, Nozzle Fill..... LIST, \$9.50

Mfrs. 5058 Compressor, 12 Ounce, Nozzle Fill..... LIST, \$12.50

ABOVE DOT COMPRESSORS..... LIST LESS 45%

## Alemite Dot Fittings

1460 Straight, 1 1/2 Inch, 1/2 I.P.T..... LIST, \$0.12

1461 Straight, 1 1/2 Inch, 1/2 I.P.T..... LIST, \$0.12

1480 Straight, 1/2 I.P.T..... LIST, \$0.25

1466 20 Degree, 1/2 I.P.T..... LIST, \$0.24

1465 45 Degree, 1/2 I.P.T..... LIST, \$0.24

1464 60 Degree, 1/2 I.P.T..... LIST, \$0.24

1463 90 Degree, 1/2 I.P.T..... LIST, \$0.24

1478 20 Degree, 1/2 I.P.T..... LIST, \$0.32

1477 45 Degree, 1/2 I.P.T..... LIST, \$0.32

1476 60 Degree, 1/2 I.P.T..... LIST, \$0.32

1475 90 Degree, 1/2 I.P.T..... LIST, \$0.32

ABOVE DOT FITTINGS

Up to 300 Pieces..... LIST LESS 45%

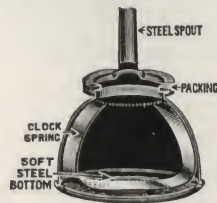
300 Pieces or More..... LIST LESS 50%

282 Entire Page..... LIST LESS 25%

283 Fig 1308 Everbrite Finish Steel Oilers..... LIST LESS 65%

Fig. 2157 Self-Closing Steel Oilier..... ★NET DOZEN, \$17.50

Balance of Page..... Prices As Shown



## SPECIAL! G. L. (Gustave Lidseen) Welded Push Bottom Oilers.

Not shown in Allen's Red Book. 22 gauge Steel, all welded, no Solder. Bottom is made of tin and cannot stay in due to tension of inserted clock spring. Large opening for filling. Gun metal finish.

Mfrs. No.	Capac-ity	Length Spout	LIST Dozen
1511	3/4 pt.	3	\$4.50
1512	1/2 pt.	5	\$5.00
1521	1/2 pt.	3	\$5.50
1522	1/2 pt.	5	\$6.00
1524	1/2 pt.	8	\$6.50
1541	1 pt.	3	\$7.50
1542	1 pt.	5	\$8.00
1544	1 pt.	8	\$8.50

ABOVE LISTS..... LESS 33 1/3%



FIG. 5595 'SCAN-CAN' TRANSPARENT OILERS. It shows what's in it and how much. The body is made from TRANSPARENT non-breakable plastic material that is not affected by oil, gasoline, kerosene, etc. Copper plated SPRING STEEL BOTTOM. The steel spouts are copper plated.

## LIST DOZEN

Spout	1/2 Pint	1/3 Pint	Small
3 Inch Straight	\$4.20	\$3.00	.....
5 Inch Straight	\$4.20	\$3.00	.....
5 Inch Bent	\$4.20	\$3.00	.....
9 Inch Bent	\$4.20	\$3.60	.....
8 Inch Flexible	\$5.40	\$4.80	.....
2 Inch Transparent	.....	.....	\$2.40
ABOVE LISTS.....	.....	.....	LESS 35%



# CONFIDENTIAL DEALERS PRICES

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284 Wide Mouth Mowing Machine Oilers

825T Plain Tinned.....★NET DOZEN, \$0.90  
825E Enameled Tinned.....★NET DOZEN, \$1.08  
705 Copperized Rolled Thread.....★NET DOZEN, \$1.60  
625 Copperized Cut Thread.....★NET DOZEN, \$1.95  
700 Advertising.....★NET 100, \$10.35  
700, 200 or More.....★NET 100, \$9.00



Fig. 4777 Eagle Rainbow Hydraulic Pump Oilers  
★NET SET OF 6, \$3.95

Fig. 3350 "Year Round" Pump Oilers.....LIST LESS 15%  
Fig. 1327 Chace Pattern Machine Oilers.....LIST LESS 25%



**SPECIAL!** Lidseen Pump Oilers. Not shown in Allen's Red Book. They will oil in any position and will not leak though inverted. 22 gauge drawn steel, all welded with triple interlocked seams. The pump mechanism is permanently assembled.

Size	Length	Vertical Spout	Horizontal Spout
Can	Inch	Mfrs. List	Mfrs. List
		No. Dozen	No. Dozen
1/4 pt.	9 1/2	G. L. Trig.	1394H
1/2 pt.	12	1332	1332H
3/4 pt.	12	1334	1334H
1 pt.	12	1336	1336H
1 1/4 pt.	12	1354	1354H
1 1/2 pt.	12	1356	1356H
1 qt.	12	1376	1376H
1 qt.	18	1377	1377H
1 qt.	23	1379	1379H

ABOVE LISTS.....LESS 33 1/4%



285 PLEWS Pistol Grip Oiler.  
Fig. 3778. Mfrs. 100. 6 ounce. Double tip vent. Polished nickel finish. Forged brass cap. Complete with holder.  
LIST EACH, \$1.50.....★NET EACH, \$1.12-1/2  
PLEWS Force-Feed Oilers.....LIST LESS 25%

Page

285 SPECIAL! Not Shown in Red Book. PLEWS 33 Series Force Feed Oilers.

Mfrs. No.	Spout	Capacity Pints	Spout Inches	LIST EACH
3600	Vertical Without Cone - Tipped Vent	3/4	7	\$0.85
3310	Vertical	3/4	7	\$0.95
3330	Vertical	3/4	9	\$1.00
3335	Vertical	1	9	\$1.25
3375	Vertical	1-1/2	9	\$1.45
3385	Vertical	2	10	\$1.90
3320	Angle	3/4	5	\$1.15
3340	Angle	1	9	\$1.40
3350	Flexible	1	10	\$1.50

## WITH VERTICAL DETACHABLE SPOUTS

3331-D	Rigid	3/4	10	\$1.20
3336-D	Rigid	1	10	\$1.40
3376-D	Rigid	1-1/2	10	\$1.60
3331-DF	Flexible	3/4	15	\$1.80
3336-DF	Flexible	1	15	\$1.95
3376-DF	Flexible	1-1/2	15	\$2.15

ABOVE.....LIST LESS 33-1/3%

286 Entire Page.....Prices As Shown

287 Fig. 2534 Allen's Superior Cotton Waste

Fancy Colored.....★NET POUND, \$0.10  
No. 1 Colored.....★NET POUND, \$0.09 1/2  
No. 2 Colored.....★NET POUND, \$0.09  
No. 3 Colored.....★NET POUND, \$0.08 1/2  
See Below for Extras for Less Than 100 Pound Bales.

No. 1 Best White Machine Cop Waste  
No. 1 White Waste.....★NET POUND, \$0.12 1/2  
No. 2 White Waste.....★NET POUND, \$0.12  
See Below for Extras for Less Than 100 Pound Bales.

Fig. 2536 Washed Wiping Rags  
White.....★NET POUND, \$0.14  
Near White.....★NET POUND, \$0.13  
White Knit.....★NET POUND, \$0.14  
Colored.....★NET POUND, \$0.11  
See Below for Extras for Less Than 100 Pound Bales.

Prices are for FULL BALES Weighing Approximately 100 Pounds. For Smaller Bales, See Above. This additional price applies to all the items on this page except Fig. 3618

Tubular Knitted Gauze.  
50 Pound Lots...EACH POUND ADDITIONAL, \$0.03 1/2  
25 Pound Lots...EACH POUND ADDITIONAL, \$0.04  
10 Pound Lots...EACH POUND ADDITIONAL, \$0.05  
5 Pound Lots...EACH POUND ADDITIONAL, \$0.08

Fig. 3618 Tubular Knitted Gauze  
25 Pound Bale.....★NET POUND, \$0.59  
10 Pound Bale.....★NET POUND, \$0.62  
5 Pound Bale.....★NET POUND, \$0.63  
Balbriggan Knit.....★NET POUND, \$0.18



288 Fig. 4829 3-In-One Oil  
1 Ounce, 10¢ Can.....★NET DOZEN, \$0.80  
3 Ounce, 25¢ Can.....★NET DOZEN, \$2.00  
Gallon Can.....★NET EACH, \$4.00  
1 Ounce, 10¢ Bottle.....★NET DOZEN, \$0.80  
8 Ounce, 50¢ Bottle.....★NET DOZEN, \$4.00

Balance of Page.....Prices As Shown

289 Fig. 4828 Plastic Wood Solvent  
Full Carton.....LIST LESS 33 1/4%  
Broken Carton.....LIST LESS 25%

Fig. 4826 Goodrich Plastikon Putty  
Pint Can.....★NET CAN, \$0.45  
Pint (50 Cans or More).....★NET CAN, \$0.40  
15 Pound Can.....★NET EACH, \$2.80  
15 Pound Can (75 Pound Lots).....★NET EACH, \$2.47  
75 Pound Can.....★NET EACH, \$11.25  
225 Pound Can.....★NET EACH, \$29.50

Balance of Page.....Prices As Shown

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



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Fig. 4827 Plastic Wood

10¢ Size. 36 in Carton. 1 Dozen or more

LIST LESS 33 1/2 %

10¢ Size. 1 to 11..... LIST LESS 25 %

All other sizes. Full Carton..... LIST LESS 40 %

All other sizes. Broken Cartons..... LIST LESS 33 1/2 %

25¢ Tube Color Assortment No. 12. 12 Tubes in Display

Carton. 2-Light Mahogany; 2-Dark Mahogany; 2-Oak;

2-Walnut; 1 White Tile; 1 Ebony; 1-Cedar and 1 Gum

Wood..... LIST DISPLAY BOX, \$3.00

3 Dozen or more..... LIST LESS 40 %

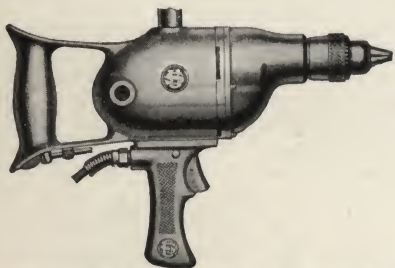
1 or 2 dozen..... LIST LESS 33 1/2 %



292 Fig. 4781 U. S. 1/4 INCH AUTOMATIC ELECTRIC DRILL.

Ball Bearing. Universal Motor....\$19.95 LIST LESS 15 %

U. S. Electric Drills..... DEDUCT 15 %



**COMMANDER—\$35.00 LIST—LESS 15 %**

293 U. S. Electric Drills

Fig. 4786 1/2 Inch Heavy Duty.....\$68.00 LESS 15 %

Fig. 4786 5/8 Inch Standard Duty.....\$74.00 LESS 15 %

Fig. 4501 7/8 Inch Heavy Duty.....\$96.00 LESS 15 %

Fig. 4502 1-1/2 Inch Heavy Duty.....\$240.00 LESS 15 %

Fig. 4502 2 Inch Heavy Duty.....\$260.00 LESS 15 %

Balance of Page..... DEDUCT 15 %

294 Figs. 4594-4787-4788 U. S. Screw Drivers..... DEDUCT 15 %

Fig. 4596 U. S. Tapper..... DEDUCT 15 %

Fig. 4595 U. S. Saws..... DEDUCT 15 %

Fig. 4509 U. S. Surface Grinders..... DEDUCT 15 %

295 Fig. 4503-4506 U. S. Flexible Shaft Machine... DEDUCT 15 %

Fig. 4597 U. S. Air Conditioned Sanders..... DEDUCT 15 %

Fig. 4608 U. S. Hi-Speed Grinder..... DEDUCT 15 %

Fig. 4609 Rotary High Speed Steel Files..... DEDUCT 15 %

295A All U. S. Grinders..... DEDUCT 10 %

295B All U. S. Grinders..... DEDUCT 10 %

295C Figs. 4790 to 4793 U. S. Utility Bench and Floor Grinders

DEDUCT 15 %

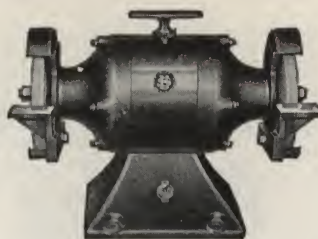
Fig. 4508 U. S. 8 Inch Grinder..... DEDUCT 15 %

Figs. 4605 and 4606 U. S. Ten Inch Grinders.. DEDUCT 10 %

295D U. S. Grinders..... Prices On Request

296 U. S. Tools..... Prices On Request

U. S.  
6 INCH  
SKIPPER



**\$22.50  
LIST  
EACH  
LESS  
15 %**

**SPECIAL!** New. U. S. 6 Inch 'SKIPPER' Ball Bearing Electric Bench grinder. Not shown in Allen's Red Book. 1/4 horse power, 3400 R.P.M., 110 volt, 60 cycle, single phase, capacitor type, fully enclosed motor. The grinding wheels are 6 inches in diameter, with 5/8 inch face and 1/2 inch hole. Adjustable tool rests. Finished black and orange. With cord and plug. Shipping weight, 43 pounds . . . **LIST EACH, \$22.50—LESS 15 %**

Page  
297

Black and Decker Electric Drills

Fig. 4586 Half Inch Heavy Duty..... EACH, \$68.00

See Red Book and Above Revisions..... DEDUCT 10 %

298

Black & Decker Tools..... DEDUCT 10 %

Fig. 5309 Marvel Hole Saws..... Prices As Shown

299

Black & Decker Tools..... DEDUCT 10 %

Fig. 4464 'Hand-ee' Grinder..... DEDUCT 15 %

300

Entire Page..... Prices As Shown

301

Morse Twist Drills..... Prices As Shown

301A

Morse Twist Drills..... Prices As Shown

301B

Morse Twist Drills..... Prices As Shown

302

Morse Tools..... Prices As Shown

303

Drill Sets Except Fig. 4320..... Prices As Shown

Fig. 4320 Huot Steel Drill Index

Set	Straight	Shank		With	With	Index
No. Drills	No.	By		Carbon	H. S.	Less
13	330M.	1/16 to 1/4	64ths	\$2.25	\$4.05	\$1.00
29	330M.	1/16 to 1/2	64ths	\$8.80	\$16.65	\$3.00
60	340M.	Nos. 1 to 60		\$7.90	\$3.10	\$2.50

304

Brace Auger Bits

Fig. 2204 Jennings Pattern..... LIST LESS 25 %

Fig. 2205 Irwin Pattern..... LIST LESS 40-5 %

Fig. 2603 Auger Bits In Sets

Eighths

No. 1 Jennings Pattern..... ★NET SET, \$3.15

No. 1 Irwin Pattern..... ★NET SET, \$2.30

Sixteenths

No. 2 Jennings Pattern..... ★NET SET, \$6.40

No. 2 Irwin Pattern..... ★NET SET, \$4.85

Fig. 2604 Clark's Pattern Expansive Bit

Small, 1/4 to 1 1/4 Inch..... ★NET EACH, \$0.90

Large, 1/2 to 3 Inch..... ★NET EACH, \$1.20

Balance of Page..... Prices As Shown

305

Morse Counterbores and Cutters..... Prices As Shown

306

Morse Cutters and Saws..... Prices As Shown

307

Morse Cutters..... Prices As Shown

Greenfield 'O.K. Jr.' Round Die Screw Plates

Fig. 4465-B5 Machine Screw Sizes..... ★NET SET, \$5.15

Fig. 5202-B7 Machine Screw Sizes..... ★NET SET, \$6.00

Fig. 5203-BB5 Small Fractional Sizes..... ★NET SET, \$5.15

Fig. 5204-C7 Small Fractional Sizes..... ★NET SET, \$6.85

Fig. 4466-3100. Automobile Sizes..... ★NET SET, \$10.65

Extra Dies, 13/16 Inch..... ★NET EACH, \$0.55

Extra Dies, 1 Inch..... ★NET EACH, \$0.70

308

Morse Mills..... Prices As Shown

309

Morse Reamers..... Prices As Shown

310

Reamers..... Prices As Shown

311

Morse Reamers..... Prices As Shown

312

Morse Reamers, Arbors and End Mills..... Prices As Shown

313

Morse Reamers and Pins..... Prices As Shown

**SPECIAL!** Commercial Grade Taper Pins. Not shown.

1 to 99..... COMMERCIAL LIST LESS 50 %

100 to 499..... COMMERCIAL LIST LESS 70 %

500 or More..... COMMERCIAL LIST LESS 75-5 %

313A

Morse Taps..... Prices As Shown

313B

Morse Taps..... Prices As Shown

314

Entire Page..... Prices As Shown

315

Morse Dies and Stocks..... Prices As Shown

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

Page 316 Fig. 1438 Little Giant Screw Plates..... LIST LESS 30%  
Set 40, 1/4 to 1-1/4 Inch..... Revised List, \$76.00  
Figs. 2577-2714 Little Giant Screw Plate Parts  
LIST LESS 10%

Fig. 4646 Little Giant Jr. Screw Plates

Set	Threads	Sizes	LIST
301	N. C.	1/4 to 1/2	\$15.00
305	N. C.	1/4 to 3/4	\$24.00
307	N. C.	1/4 to 1	\$38.00
331	N. F.	1/4 to 1/2	\$15.00
335	N. F.	1/4 to 3/4	\$24.00
337	N. F.	1/4 to 1	\$38.00
3310	N. C.	1/4 to 1/2	\$24.00
	N. F.	1/4 to 1/2	
3311	N. C.	1/4 to 3/4	\$43.00
	N. F.	1/4 to 3/4	

ABOVE LISTS..... LESS 30%

Fig. 3675 Champion Adjustable Die and Stock Sets

Mfrs. 1001B..... ★NET SET, \$4.00  
Mfrs. 1001A..... ★NET SET, \$4.00  
Extra Dies..... ★NET EACH, \$0.75

Figs. 920G-923G Pump Maker's Stocks and Dies

Stocks and Dies..... LIST LESS 30%  
Extra Dies..... LIST LESS 5%

317 Fig. 3108 Adjustable Tap Wrenches..... LIST LESS 25%

Fig. 3674 Champion Adjustable Tap Wrench

Size 2, 3/16 to 1/2 Inch..... ★NET EACH, \$1.50  
Size 3, 1/4 to 3/4 Inch..... ★NET EACH, \$1.85

Fig. 3956 Tee Handle Tap Wrenches

1/4 Inch Capacity..... ★NET EACH, \$0.20  
3/8 Inch Capacity..... ★NET EACH, \$0.25  
1/2 Inch Capacity..... ★NET EACH, \$0.30

Fig. 5311 Greenfield Tap Wrenches..... LIST LESS 25%

Balance of Page..... Prices As Shown

317A Cushman Chucks..... Prices As Shown

317B All Chucks..... Prices As Shown

318 Chucks and Arbors..... Prices As Shown

319 Wahlstrom Drill Chucks and Tapper..... Prices On Request

Balance of Page..... Prices As Shown

320 Fig. 3958 Beaver 4 Post Die Stocks, 1 to 2 Inch.

Mfrs. 8R Ratchet..... ★NET COMPLETE, \$13.50

Mfrs. 8 Plain..... ★NET COMPLETE, \$10.50

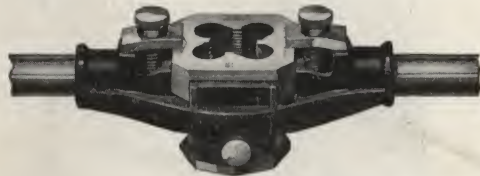
Fig. 4859 Beaver Pipe Reamer,

1/8 to 2 Inch..... ★NET EACH, \$1.00

Fig. 4521 Beaver 12R Ratchet

Die Stock..... ★NET COMPLETE, \$13.50

Other Beaver Stocks and Dies..... Prices As Shown



321 Entire Page..... Prices As Shown

321A Toledo Adjustable Pipe Threading Devices

Fig. 4198. Mfrs. 10..... ★NET EACH, \$12.00

Fig. 4199. Mfrs. 10A With Ratchet ★NET EACH, \$15.00

Balance of Toledo Pipe Tools..... Prices As Shown

321B Toledo Pipe Tools..... Prices As Shown

Fig. 3959 Mfrs. 999 Portable Pipe Machine..... ★NET, \$275.00

Super Model With 6 Heads..... ★NET, \$350.00

Super Model With 3 Heads..... ★NET, \$309.95

322 Oster Pipe Tools..... Prices As Shown

323 Fig. 1393 Saunders Roller Pipe Cutter

Tools and Repairs..... LIST LESS 25%

Wheels Only..... LIST LESS 50%

Fig. 1394 Barnes Three-Wheel Pipe Cutter

Tools and Repairs..... LIST LESS 40%

Wheels Only..... LIST LESS 50%

Fig. 2045 Beaver Square-End Pipe Cutter..... Prices As Shown

Fig. 1395 Trimo Pipe Cutters..... LIST LESS 40%

Fig. 4864 Ridgid Pipe Cutters..... LIST LESS 40%

Cutting Wheels Only..... LIST LESS 45%

Fig. 4865 Ridgid Tubing Cutter..... LIST LESS 40%

Fig. 2575 Nye Knurled Cutter Wheels..... LIST LESS 40%

324 Figs. 3236-3237 Trimo Pipe Vises..... LIST LESS 23%

Fig. 3303 Nye Chain Vise..... ★NET EACH, \$6.65

Fig. 4576 Clamp Vises

2 Inch Jaw..... ★NET EACH, \$1.45

2-1/2 Inch Jaw..... ★NET EACH, \$1.90

3 Inch Jaw..... ★NET EACH, \$2.70



Page 324 Fig. 5320 Simplex Utility Vise..... DEDUCT 10%  
Con. All Other Vises..... Prices As Shown

325 Vises..... Prices As Shown

Fig. 5317 Athol Drill Press & Milling Machine Vise

LIST EACH, \$8.75..... LESS 20%

Fig. 5318 Athol Milling Machine Vise

Mfrs. No.	Jaws, Inches	Swivel Base	Jaws Open	LIST EACH
1024PL	4	Without	3-1/8	\$30.00
1026PL	6	Without	4	\$38.00
1024SW	4	With	3-1/8	\$37.00
1026SW	6	With	4	\$48.00

DISCOUNTS..... ABOVE LIST LESS 20%

326 Yankee Vises and Clamps..... LIST LESS 40-10%

All Other Vises..... Prices As Shown

327 Entire Page..... Prices As Shown

327A Armstrong Lathe Tools..... Prices As Shown

Fig. 4404. Clarite Tool Holder Bits

3/16 x 3/16 Inches..... ★NET POUND, \$2.10

Other Sizes..... ★NET POUND, \$1.75

5 Pounds or More..... DEDUCT 10%

327B Armstrong Lathe Tools..... Prices As Shown

328 Fig. 4404 Clarite Tool Holder Bits

3/16 x 3/16 Inches..... ★NET POUND, \$2.10

Other Sizes..... ★NET POUND, \$1.75

5 Pounds or More..... DEDUCT 10%

Balance of Page..... Prices As Shown

329 Entire Page..... Prices As Shown



**SPECIAL! Nicholson No. 66 Retail File Display Unit.** 66 fast selling tested, sharp, durable files WRAPPED IN CELLOPHANE. The box is brilliantly colored, compact, strong, and contains:  
12—6 Inch Nicholson Slim Taper Files  
12—6 Inch Nicholson Extra Slim Taper Files  
12—6 Inch Nicholson Mill Bastard Files  
18—8 Inch Nicholson Mill Bastard Files  
12—10 Inch Nicholson Mill Bastard Files  
**No. 66 FILE DISPLAY UNIT.... ★NET \$11.00**

330 Files..... Prices As Shown  
Warren Files. Write us for prices.

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

**NEW! NICHOLSON HAND SAW BLUNT EXTRA SLIM FILE.** For sharpening saws. Because it is blunt rather than tapered it gives the user a straight, even stroke without a rocking or riding effect. The especially designed teeth are of the correct angle to cut smoothly and rapidly. The edges are set to the proper degree to preserve the correct gullet between the saw teeth.

Length, Inches	5-1/2	6	7
LIST DOZEN	\$3.80	\$4.50	\$5.40
1 to 11, Broken Package	LIST LESS 40%		
Full Packages of 12	LIST LESS 40-12-1/2%		

Page 331 Files.....Prices As Shown  
Warren Files. Write us for prices.

332 Files and Rasps.....Prices As Shown  
Warren Files. Write us for prices.

332A 'XF' Files.....Prices As Shown  
332B 'XF' Files.....Prices As Shown  
333 Entire Page.....Prices As Shown  
334 Hack Saw Blades.....Prices As Shown  
335 Hack Saw Blades.....Prices As Shown  
335A Entire Page.....Prices As Shown

335B Fig. 2882 Brass Escutcheon Pins.....LIST LESS 50%  
Fig. 2906 Bessemer Coppered Round Steel Rods.....DEDUCT 10%  
Balance of Page.....Prices As Shown

336 Entire Page.....Prices As Shown  
337 Entire Page.....Prices As Shown  
337A Entire Page.....Prices As Shown  
337B Entire Page.....Prices As Shown  
337C Entire Page.....Prices As Shown  
337D Entire Page.....Prices As Shown  
338 Entire Page.....Prices As Shown  
339 Entire Page.....Prices As Shown  
339A Entire Page.....Prices As Shown  
339B All Taft-Peirce Gages.....Prices As Shown  
340 Entire Page.....Prices As Shown  
341 Entire Page.....Prices As Shown  
341A Entire Page.....Prices As Shown

341B Fig. 4895 Lufkin Mechanics Folding Steel Tempered Rule.....LIST LESS 33 1/4%  
Fig. 4896 Lufkin Folding Brass Two-Foot Rules.....LIST LESS 33 1/4%  
Fig. 3940 Johnson Combination Rules  
6 Inch.....★NET EACH, \$2.90  
12 Inch.....★NET EACH, \$4.35  
Balance of Page.....Prices As Shown

341C Fig. 4898 Johnson Combination Inside Caliper Outside Caliper and Depth Gauge  
4 Inch.....★NET EACH, \$2.90  
5 Inch.....★NET EACH, \$3.05  
6 Inch.....★NET EACH, \$3.20  
Balance of Page.....Prices As Shown

341D Entire Page.....Prices As Shown

342 Fig. 3043 Lufkin Universal Steel Tape.....LIST LESS 25-10%  
Fig. 4340 Lufkin Metallic Tapes.....LIST LESS 25-10%  
Fig. 3042 Lufkin Ass Skin Tapes.....LIST LESS 25-10%  
Fig. 4260 Lufkin Crescent Steel Tape Rules  
Mfrs. 696.....★NET EACH, \$1.75  
Mfrs. 1696.....★NET EACH, \$1.05  
Mfrs. 686.....★NET EACH, \$0.70  
Mfrs. 1686.....★NET EACH, \$0.60  
Fig. 4909 Lufkin Mezurall Steel Tape Rule  
Mfrs. 926 72 Inch.....★NET EACH, \$0.85  
Mfrs. 928 96 Inch.....★NET EACH, \$1.15  
Fig. 500-S Starrett Pocket Steel Tapes.....LIST LESS 25-10%  
Fig. 4341 Lufkin Linen Tapes.....LIST LESS 25-10%  
Fig. 4342 Aluminum Pocket Level.....★NET EACH, \$1.50  
Starrett Bench Levels  
Fig. 1308. 3-1/2 Inch.....LIST EACH, \$0.60  
Fig. 1328. 4 Inch, Square End.....LIST EACH, \$1.80  
Fig. 1328. 6 Inch, Square End.....LIST EACH, \$2.10  
Fig. 1328. 9 Inch, Square End.....LIST EACH, \$2.40  
Fig. 1328. 12 Inch, Square End.....LIST EACH, \$2.70  
Fig. 1328. 18 Inch, Concave End.....LIST EACH, \$3.75  
Fig. 1328. 24 Inch, Concave End.....LIST EACH, \$4.50  
DISCOUNT.....ABOVE LIST LESS 10%

343 All Williams Wrenches.....LIST LESS 45%

343A Williams Supersocket Wrenches.....LIST LESS 45-5%

343B Fig. 4911 Williams Wrench Set.....★NET SET, \$7.90  
Fig. 4912 Williams Wrench Set.....★NET SET, \$5.20  
Fig. 4913 Williams Wrench Set.....★NET SET, \$11.00  
Fig. 4096 Williams Wrench Set.....★NET SET, \$20.78  
Fig. 4097 Williams Wrench Set.....★NET SET, \$25.24  
Fig. 4610 Williams Wrench Set.....★NET SET, \$36.35  
Figs. 4914, 4915 and 4912-12 Point Wrenches.....LIST LESS 30-10%

Page 344 Figs. 5275-5277 Williams Superelector Ratchet Wrench and Sockets.....LIST LESS 50-10%  
Fig. 5278 Williams Pin Spanners.....LIST LESS 45%  
Fig. 2847 Williams "Superrench" Wrenches.....LIST LESS 48%

Fig. 2918 Check Nut or "Thin" Wrenches.....LIST LESS 45%

345 Fig. 1379 Williams' Engineers' Wrenches.....LIST LESS 45%  
Figs 3822 and 3824 Williams' "Volume" Wrench Sets.....DEDUCT 10%

Fig. H-75 Tappet Wrench Set.....Prices As Shown  
Fig. 1378 Williams' Engineers' Wrenches.....LIST LESS 45%  
Fig. 2550 Williams' Double Head Set Screw Wrenches.....LIST LESS 45%

346 Fig. 2556 Williams' Construction Wrenches.....LIST LESS 45%

Fig. 2554 Williams' Car Wrenches.....LIST LESS 45%  
Fig. 2555 Williams' Structural Wrenches.....LIST LESS 45%  
Balance of Page.....Prices As Shown



347 Genuine 'Trimo Alloy' Pipe Wrenches  
Wrenches, 1 to 5.....LIST LESS 70%  
Wrenches, 6 or More.....LIST LESS 72%  
Repairs.....LIST LESS 70%

**SPECIAL. Not Shown in Allen's RED BOOK.**

Trimo Alloy Steel Tools, Set

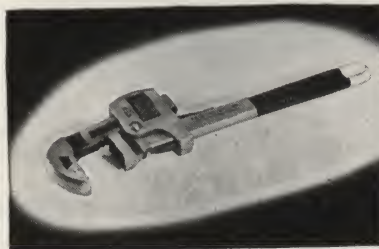
Consisting of:

1— 8 Inch Trimo-Alloy Pipe Wrench  
1—10 Inch Trimo-Alloy Pipe Wrench  
1—14 Inch Trimo-Alloy Pipe Wrench  
1—18 Inch Trimo Alloy Pipe Wrench  
1—12 Inch Perfect Handle Monkey Wrench  
1— 6 Inch Trimo-Alloy Screw Driver 11 1/4 Inches Overall

★NET SET, \$6.25

Genuine Master Stillson Pipe Wrenches  
Wrenches, 1 to 5.....LIST LESS 72%  
Wrenches, 6 or More.....LIST LESS 72-10%  
Repairs.....LIST LESS 70%

Fig. 4922 and Fig. 4923 Rigid Pipe Wrenches  
Wrenches, 1 to 5.....LIST LESS 70%  
Wrenches, 6 or More.....LIST LESS 72%  
Repairs—Revised Higher List Prices—Not Shown in Allen's Red Book.....LIST LESS 70%



**SPECIAL. Not Shown in Allen's RED BOOK.**

Stillson-Trimo Pattern Pipe Wrenches

6 Inch. Steel or W.....★NET EACH, \$0.37  
8 Inch. Steel or W.....★NET EACH, \$0.42  
10 Inch. Steel or W.....★NET EACH, \$0.55  
14 Inch. Steel Handle.....★NET EACH, \$0.75  
18 Inch. Steel Handle.....★NET EACH, \$1.08  
24 Inch. Steel Handle.....★NET EACH, \$1.88  
36 Inch. Steel Handle.....★NET EACH, \$3.90  
48 Inch. Steel Handle.....★NET EACH, \$5.90

**ASSORTMENTS**

1 Each, 8-10-14 Inch.....★NET \$1.68  
1 Each, 10-14-18-24 Inch.....★NET \$4.15

348 Fig. 4153 "Crestoloy" Chromium Plated Wrenches  
1 to 143.....LIST LESS 33 1/2%  
1 Gross or More.....LIST LESS 37 1/2%  
Fig. 1357 Genuine Coes Screw Wrenches.....LIST LESS 45-5%  
Balance of Page.....Prices As Shown

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



Page  
349

All Crescent Tools

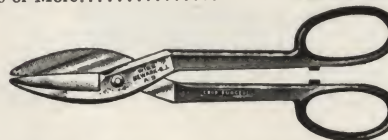
1 to 143.....LIST LESS 33½%  
1 Gross or More.....LIST LESS 37½%



- 350 Fig. 50C Crescent Side Cutting Pliers  
Inches 4 5 6 7 8  
LIST \$1.15 \$1.20 \$1.30 \$1.50  
Fig. 650C Light Chain Nose Side Cutting Pliers  
7 Inch.....LIST EACH, \$1.60  
Figs. 1000C to 654C Crescent Pliers  
1 to 143.....LIST LESS 33½%  
1 Gross or More.....LIST LESS 37½%
- 351 Figs. 777C to 23C Crescent Pliers  
1 to 143.....LIST LESS 33½%  
1 Gross or More.....LIST LESS 37½%



- Figs. 3565C-4359 Crescent Tinner's Snips  
1 to 143.....LIST LESS 33½%  
1 Gross or More.....LIST LESS 37½%
- Figs. 3195-3195CB "Wiss" Tinner Snips  
1 to 5.....LIST LESS 33½%  
6 or More.....LIST LESS 33½-10%



**SPECIAL! WISS 'A' PATTERN SNIPS.** Solid crucible steel. Gray japanned handles. For general all around use. Strong and well made for occasional use.

Mfrs. No.	Length, Inches	Cut, Inches	Weight, Ounces	LIST EACH
A13	7	2	6-1/2	\$0.90
A12	8	2	8	\$1.00
A11	9-3/4	2-1/4	10-1/2	\$1.05
A10	11	2-1/2	20	\$1.15
A9	12-1/2	3	28	\$1.35
1 to 5.....				ABOVE LIST LESS 33-1/3%
6 or More.....				ABOVE LIST LESS 33-1/3-10%

Fig. 2220 Combined Shears and Pipe Crimpers.....★NET EACH, \$2.70

Fig. 4612 Compound Lever Snips.....LIST LESS 25%

- 352 Fig. 62ST Stanley Boxwood Rules.....LIST DOZEN, \$14.40  
Stanley Boxwood Caliper Rules  
Fig. 36ST 6 Inch 2 Fold.....LIST DOZEN, \$9.00  
Fig. 32ST 12 Inch 4 Fold.....LIST DOZEN, \$14.40  
Fig. 32-1/2ST, 12 Inch, 4 Fold.....LIST DOZEN, \$18.60  
Fig. 36-1/2ST, 12 Inch, 2 Fold.....LIST DOZEN, \$12.00  
Balance of Rules.....List Prices As Shown  
ABOVE LISTS.....LESS 33-1/3%

- 353 Fig. 4377 Lufkin Aluminum Rules.....List As Shown  
Fig. 3162 Stanley 'Victor' Zig-Zag Rules  
3 Foot Yellow.....LIST DOZEN, \$3.00  
4 Foot Yellow.....LIST DOZEN, \$4.20  
5 Foot Yellow.....LIST DOZEN, \$4.80  
6 Foot Yellow.....LIST DOZEN, \$5.40  
8 Foot Yellow.....LIST DOZEN, \$7.80  
3 and 4 Foot White.....Discontinued  
5 Foot White.....LIST DOZEN, \$5.40  
6 Foot White.....LIST DOZEN, \$6.00  
8 Foot White.....LIST DOZEN, \$8.40

- Page 353  
Con. Fig. 100-ST Stanley Steel Square.....LIST EACH, \$1.85  
Fig. R100B Stanley Rafter Square.....LIST EACH, \$2.60  
Fig. 100B-TD Stanley Take-Down Rafter Square.....LIST EACH, \$6.60

- Fig. 61ST Stanley Marking Gauge.....LIST DOZEN, \$4.20  
Fig. 20ST Stanley Try Squares  
4-1/2 Inch Blade.....LIST DOZEN, \$7.80  
6 Inch Blade.....LIST DOZEN, \$8.40  
7-1/2 Inch Blade.....LIST DOZEN, \$8.40  
9 Inch Blade.....LIST DOZEN, \$12.00  
10 Inch Blade.....LIST DOZEN, \$12.20  
12 Inch Blade.....LIST DOZEN, \$15.60  
15 Inch Blade.....LIST DOZEN, \$19.80

- Fig. 2ST Stanley Try and Mitre Squares  
4-1/2 Inch Blade.....LIST EACH, \$0.90  
6 Inch Blade.....LIST EACH, \$1.05  
7-1/2 Inch Blade.....LIST EACH, \$1.20  
9 Inch Blade.....LIST EACH, \$1.45

- Fig. 25ST Stanley Sliding T Bevels  
6 Inch Blade.....LIST DOZEN, \$7.80  
8 Inch Blade.....LIST DOZEN, \$7.80  
10 Inch Blade.....LIST DOZEN, \$8.40

- Fig. 21ST Stanley Combination Square  
9 Inch Blade.....LIST EACH, \$1.15  
12 Inch Blade.....LIST EACH, \$1.20  
ABOVE LISTS.....LESS 33-1/3%

- 354 Stanley 'Bailey' Adjustable Iron Planes  
Fig. 4ST Smooth.....LIST EACH, \$3.95  
Fig. 5ST Jack.....LIST EACH, \$4.40  
Fig. 6ST Fore.....LIST EACH, \$6.80  
ABOVE LISTS.....LESS 33-1/3%

- Figs. 3150-3151 V & B Planes.....LIST LESS 25%  
Figs. 50ST to 20ST Stanley Everlasting Chisels  
LIST LESS 33½%

- Fig. 3942 Crescent Wood Chisels.....LIST LESS 33½%  
Fig. 00ST Stanley Wood Plumbs and Levels

- 18 Inches Long.....LIST EACH, \$1.60  
20 Inches Long.....LIST EACH, \$1.70  
22 Inches Long.....LIST EACH, \$1.70  
24 Inches Long.....LIST EACH, \$1.80  
26 Inches Long.....LIST EACH, \$1.90  
28 Inches Long.....LIST EACH, \$2.00  
30 Inches Long.....LIST EACH, \$2.10  
ABOVE LISTS.....LESS 33-1/3%

Wood Work Benches.....Prices As Shown

- 355 Fig. 3454 Atkins Home and Farm Saw.....★NET EACH, \$2.15  
Fig. 3455 Atkins Perfection Saw.....★NET EACH, \$3.75  
Figs. 1849-4181 Le Page's Glue.....LIST LESS 33½%  
Balance of Page.....Prices As Shown



**SPECIAL. OHLEN-BISHOP SAWS.** Not Shown in Allen's Red Book.

## HAND SAWS

- Mfrs. B23 High Speed Straight Back Hand Saws  
24 Inch, Cross Cut.....★NET DOZEN, \$25.60  
26 Inch, Cross or Rip.....★NET DOZEN, \$26.45

- Mfrs. C23S Straight Back Hand Saws  
22 Inch, Cross Cut.....★NET DOZEN, \$13.80  
24 Inch, Cross Cut.....★NET DOZEN, \$15.75  
26 Inch, Cross or Rip.....★NET DOZEN, \$17.35

- Mfrs. 209W Household Skew Back Hand Saws  
20 Inch, Cross Cut.....★NET DOZEN, \$6.60  
24 Inch, Cross Cut.....★NET DOZEN, \$8.25  
26 Inch, Cross or Rip.....★NET DOZEN, \$8.50



## TWO MAN SAWS

- Mfrs. E110, 14x16 gauge TUTTLE TOOTH Crosscut Two-Man Saws  
5-1/2 Foot.....★NET EACH, \$2.45  
6 Foot.....★NET EACH, \$2.68

- Mfrs. E123, 14x18 gauge DIAMOND TOOTH Crosscut Two-Man Saws  
5-1/2 Foot.....★NET EACH, \$2.75  
6 Foot.....★NET EACH, \$3.00

Add for 6 Loop Handle.....★NET PAIR, \$0.32

## ONE-MAN SAWS

- Mfrs. 490 Champion Tooth One-Man Saws with supplementary handle  
3-1/2 Foot.....★NET EACH, \$2.50  
4 Foot.....★NET EACH, \$2.80

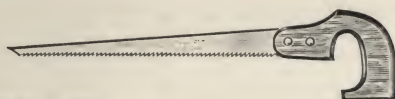
- Mfrs. 4 One-Man Handle.....★NET DOZEN, \$2.95  
Mfrs. 16 Supplementary Handle.....★NET DOZEN, \$2.40

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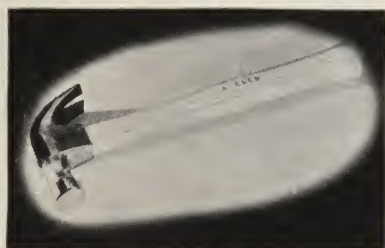
# CONFIDENTIAL DEALERS PRICES

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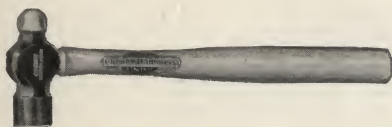


## COMPASS SAWS

Mfrs. 4, Compass Saws	
12 Inch.....	★NET DOZEN, \$3.50
14 Inch.....	★NET DOZEN, \$3.50
Mfrs. 23 Compass Saws, Interchangeable Blade	
12 Inch.....	★NET DOZEN, \$7.00
14 Inch.....	★NET DOZEN, \$7.30
Mfrs. 23 Extra Blades	
12 Inch.....	★NET DOZEN, \$3.50
14 Inch.....	★NET DOZEN, \$3.85

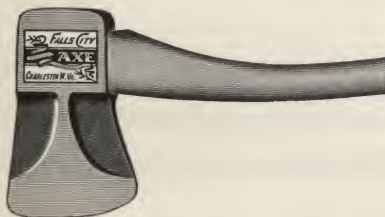


- 356 Fig. 3700 Cheney Nail-Holding Hammers... LIST LESS 50%  
 Fig. 3702 Mohawk Nail Hammers..... LIST LESS 45%  
 Fig. 3703 Mohawk Nail Hammers..... LIST LESS 45%  
 Fig. 3701 Cheney Ripping Hammers..... LIST LESS 50%



- 357 Fig. 3704 Railroad Finish Ball Pein Hammers.... LESS 35%  
 Fig. 3710 Machinists' Cross Pein Hammers... LIST LESS 45%  
 Fig. 3707 Engineers' Hammers..... LIST LESS 40%  
 Fig. 3709 Brick Hammers..... LIST LESS 40%  
 Fig. 3705 Machinists' Ball Pein Hammers... LIST LESS 45%  
 Fig. 3706 Machinists' Straight Pein Hammers.... LESS 45%  
 Fig. 3714 Auto Bumping Hammer..... LIST LESS 40%  
 Fig. 3720 3-in-1 Hammer..... LIST LESS 40%  
 Fig. 3708 Blacksmith Hand Hammers..... LIST LESS 40%  
 Fig. 3711 Riveting Hammers..... LIST LESS 40%  
 Fig. 3712 Tinnets' Riveting Hammer..... LIST LESS 40%  
 Fig. 3713 Tinnets' Paneling Hammer..... LIST LESS 40%

- 358 Fig. 3764 Kelly Trooper Hunters Axe... ★NET EACH, \$0.75  
 Fig. 3765 Kelly Boy Scout Kamp Axe... ★NET EACH, \$1.25  
 Balance of Page..... DEDUCT 10%



- 359 Fig. 3155 Kelly Falls City Single Bit Axes.... ★NET, \$1.20  
 Fig. 3768 Kelly Falls City Handled House Axe... ★NET, \$0.95  
 Fig. 1524 Rawhide Hammers..... LIST LESS 25%  
 Fig. 1523 Rawhide Mallets..... LIST LESS 25%  
 Fig. 1168 Nail Sets  
 12 in wood box..... ★NET, \$1.60  
 12 in paper box..... ★NET, \$1.35  
 Fig. 2735 Cyclops Nail Puller..... ★NET EACH, \$1.70  
 Balance of Page..... Prices As Shown

- 360 All Tool Handles  
 1 to 23..... LIST LESS 60%  
 2 Dozen to 11 Dozen..... LIST LESS 60-10%  
 12 Dozen or More..... LIST LESS 70%



Size 5



Size 10

**SPECIAL! Red Devil Grady Steel Wedges on Display Cards.**  
 Illustrations are actual size. A positive remedy for loose hammer, hatchet and all handles. These wedges hold like a fish hook and vibration cannot work the handle loose. Not shown in Allen's Red Book.

Card No.	On Card	★NET CARD
5	36 Size 5 Wedges	\$0.60
10	24 Size 10 Wedges	\$0.60
Combination	36 Size 5 and 24 Size 10	\$1.05



- Page 361 **SPECIAL! Yankee Handyman Spiral Ratchet Screw Driver**  
 Nationally Advertised. Not shown in Allen's Red Book.  
 Mfrs. 33H Screwdriver, with one 1/4 inch bit

6 Inch Merchandiser.....	★NET DOZEN, \$8.00
SMALL Screwdriver Bits, 1/2 Inch wide	★NET, \$4.00
Chuck and 3 drills, 5/16, 7/16 and 1/2 Inch	★NET DOZEN, \$0.96
3 Sets On Display Card.....	★NET DOZEN SETS, \$3.12
Countersink.....	★NET, \$0.78
	★NET DOZEN, \$1.95



**SPECIAL! Mfrs. 2H Yankee Handyman Ratchet Screwdriver**  
 Suggested Retail, \$0.25..... ★NET DOZEN, \$2.00



No. 330H ACCESSORY PAK DISPLAY CONTAINER



No. 330H ACCESSORY SET

**SPECIAL. YANKEE HANDYMAN SCREWDRIVER ACCESSORY PAK.** The PAK contains: A 5/32 inch Screwdriver Bit; Countersink; Chuck and 3 Drill Points, 5/64, 7/64, and 9/64 inch. It converts a Handyman Screwdriver (not included) into a drill. It then bores holes, countersinks holes, drives screws. On a card wrapped in cellophane. 6 PAKS in an attractive display container. Suggested resale, \$0.75 a PAK.

..... ★NET 6 PAKS IN DISPLAY, \$3.00

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

Page 361 Fig. 2010 A Champion REGULAR Screw Drivers

2-1/2 x 3/8 Inch Blade.....	LIST DOZEN, \$4.65
3 x 1/2 Inch Blade.....	LIST DOZEN, \$5.50
4 x 1/2 Inch Blade.....	LIST DOZEN, \$5.75
5 x 1/2 Inch Blade.....	LIST DOZEN, \$6.15
6 x 1/2 Inch Blade.....	LIST DOZEN, \$7.05
7 x 1/2 Inch Blade.....	LIST DOZEN, \$8.10
8 x 1/2 Inch Blade.....	LIST DOZEN, \$9.00
10 x 1/2 Inch Blade.....	LIST DOZEN, \$11.20
12 x 1/2 Inch Blade.....	LIST DOZEN, \$13.35
ABOVE LISTS.....	LESS 30%

Fig. 3904 Champion CABINET Screw Drivers

2-1/2 x 3/8 Inch Blade.....	LIST DOZEN, \$4.65
3-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$5.50
4-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$5.55
5-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$6.70
6-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$7.50
8-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$8.85
10-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$10.30
12-1/2 x 1/2 Inch Blade.....	LIST DOZEN, \$12.20
ABOVE LISTS.....	LESS 30%

Fig. 3691 Yankee Plain Screw Drivers... LIST LESS 40-10%

Fig. 1585 Perfect Handle Screw Drivers... LIST LESS 20%

Fig. 1584 Perfect Handle Screw Drivers... LIST LESS 20%

Figs. 4106 and 4107 Crescent Screw Drivers

1 to 143.....	LIST LESS 33 1/2%
1 Gross or More.....	LIST LESS 37 1/2%

Fig. 4927 M-F Mohawk Screw Driver... LIST LESS 33 1/2%

1 to 5.....	LIST LESS 33 1/2%
6 or More.....	LIST LESS 40%

Figs. 5304-5306 Irwinoid Screw Drivers... LIST LESS 33 1/2%

362 Fig. 10Y Yankee Ratchet Screw Drivers

Size, Inches	2	3	4	5	6
LIST	\$1.02	\$1.19	\$1.27	\$1.40	\$1.58

Fig. 15Y Yankee Ratchet Screw Drivers

Size, Inches	2	3	4	5	6
LIST	\$1.11	\$1.16	\$1.22	\$1.27	\$1.31
ABOVE LISTS LESS 50%					

Yankee Spiral Ratchet Screw Drivers

1583-30A Plain Standard.....	LIST EACH, \$4.47
1583-31A Plain Heavy.....	LIST EACH, \$6.01
3129-135 Quick Return Light.....	LIST EACH, \$3.95
3129-130A Quick Return Standard.....	LIST EACH, \$5.11
3129-131A Quick Return Heavy.....	LIST EACH, \$6.90
ABOVE LISTS LESS 50%	

Yankee Hand and Breast Drills

Y1530.....	LIST EACH, \$7.10
Y1545.....	LIST EACH, \$14.90
Y1555.....	LIST EACH, \$17.10
Y1431.....	LIST EACH, \$4.40
Y1445.....	LIST EACH, \$10.00
Y1455.....	LIST EACH, \$11.50
ABOVE LISTS LESS 50%	

Miller Falls Spiral Ratchet Screw Driver

Fig. 3174 Plain

Mfrs. 61MF, 20-1/2 Inch Open.....	LIST EACH, \$3.55
Mfrs. 62MF, 26-1/2 Inch Open.....	LIST EACH, \$4.75

Fig. 3180 With Automatic Return

Mfrs. 610MF, 18-1/2 Inch Open.....	LIST EACH, \$4.00
Mfrs. 620MF, 24-1/2 Inch Open.....	LIST EACH, \$5.45
DISCOUNT.....	LIST LESS 33 1/2%

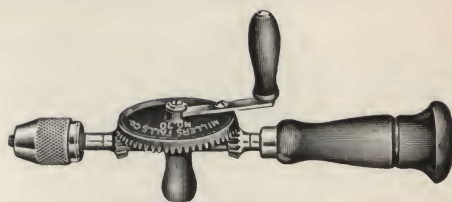
Do you know that there are 38000 Items shown in Allen's Red Book and there are numerous SPECIALS shown throughout this Discount Sheet that are not included in Allens Red Book.

363 Entire Page, Drills and Braces

DISCOUNT.....	LIST LESS 33 1/2%
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Miller Falls Mohawk-Shelburne Tools. Not listed in Allen's Red Book.

Fig. No.	Mfrs. No.	Item	LIST DOZEN
4948	10	Awl.....	\$1.50
4945	1710	Brace.....	\$33.60
4946	1410	Brace, Polished finish.....	\$16.80
4946	1610	Brace, Nicked finish.....	\$19.20
4937	1900	Cutter, Glass.....	\$1.30
4941	700	Plane, Block.....	\$9.60
4943	814	Plane, Jack.....	\$30.00
4942	900	Plane, Smooth.....	\$26.40
4947	711	Set, Nail, 1/32 Inch.....	\$1.10
4947	712	Set, Nail, 1/16 Inch.....	\$1.10
4947	713	Set, Nail, 3/32 Inch.....	\$1.10
4947	714	Set, Nail, 1/8 Inch.....	\$1.10
4947	1712	Set, Nail, Assorted.....	\$1.10
4944	1800	Set, Saw.....	\$15.60
4932	1200	Square, Combination.....	\$14.40
4938	15	Vise, Clamp, 1-1/2 Inch Jaw.....	\$12.00
4939	1700	Vise, Clamp, 2-1/2 Inch Jaw.....	\$16.80
4940	18	Vise, Clamp, Swivel base, 2-1/2 Inch Jaw.....	\$21.60
DISCOUNT.....		LIST LESS 33 1/2%	



Page 363 Con. SPECIAL. Fig. 5505. Millers Falls 70th Anniversary, Special No. 70 Hand Drill. Not shown in Allen's Red Book. For 0 to 1/4 inch round shank drills. Extra large, hollow, screw cap end handle and side handles are hardwood, mahogany finish. 8 drill points: 1/16 to 1/4 diameter. All steel frame, nickel plated. 3-1/2 inch gear. Gear ratio 4 to 1. Knurled all steel 3 jaw chuck. 12-5/8 inches overall. ★NET EACH, \$1.00

Goodell Pratt Tools. Not listed in Allen's Red Book.

Fig. No.	Mfrs. No.	Item	LIST DOZEN
4934	365	Awl, Diamond Point.....	\$5.40
4931	20	Rule, Precision, 6 Inch, With Sliding Pocket Clip.....	\$4.80
4935	237	Saw, Keyhole.....	\$3.60
		Extra Blades.....	\$1.70
4933	39	Scraper, Wood.....	\$6.00
4936	199	Screwdriver, Offset.....	\$4.20
DISCOUNT.....		LIST LESS 33 1/2%	

364 All Drills..... Prices As Shown

365 Fig. 3984 Buffalo Ball Bearing Post Drill ★NET EACH, \$5.95

Fig. 3985 Buffalo Ball Bearing Post Drill ★NET EACH, \$11.05

Fig. 3986 Bufco Forge..... ★NET EACH, \$8.50

Fig. 4953 Portable Rivet Forge.. ★NET COMPLETE, \$30.60

Fig. 3988 Buffalo Forges

Mfrs. 735H, Half Hood.....	★NET EACH, \$31.88
Mfrs. 735, No Hood.....	★NET EACH, \$28.05
Water Tank.....	★NET EACH, \$5.10

Fig. 3989 Buffalo Oil-Burning Forge

Size No. 1.....	★NET EACH, \$55.25
Size No. 2.....	★NET EACH, \$76.50



SPECIAL. LATHE. 8 INCH SWING. 30 INCHES BETWEEN CENTERS. Heavy bed casting makes a rigid lathe. Heavy head and tail stock. 3/4 inch threaded spindle. Oilite bronze bushed bearings. 4 step cone pulley. The pulley end of the spindle is threaded for a grinding wheel. 3-1/2 inch wheel with a spindle travel of 2 inches. The base, tail stock base, head stock base, tool rest and tail stock wheel are all made of cast iron. 44-3/4 inches overall. 6-1/2 inches high. 4 inches wide. 8 inch swing. 30 inches between centers. The bed is 40 inches long, 4 inches wide, and 2 inches high. Head stock spindle is threaded on both ends, 3/4 by 7-3/4 inches long. Spur center supplied, 15/16 by 1-5/8 inches with center pin and 4 milled teeth. 6-1/2 inch wide adjustable tool rest. Net weight, 30 pounds. Suggested resale, \$9.50 ★NET EACH, \$6.33

SET OF 7 LATHE WOODTURNING TOOLS. 1/2 by 9 inch hard tool steel. Chisel, 1/2 inch. 1/2 inch round nose. 3/8 inch round nose. 1/4 inch round nose. Skew. Spear point. Parting tool. Suggested resale, \$2.45..... ★NET SET, \$1.63

SET OF 4 LATHE WOOD TURNING TOOLS. Made of 1/2 by 9 inch hard tool steel. 1/2 inch Chisel. 1/2 inch Round Nose. Skew. Parting Tool. Suggested Resale, \$1.40..... ★NET SET, \$0.93

LATHE SCREW CENTER. Made of cast iron, 3-1/8 inches in diameter with hole drilled and attaching to the lathe spindle. 7/8 inch screw extends from the face. Suggested Resale, \$0.80..... ★NET EACH, \$0.53

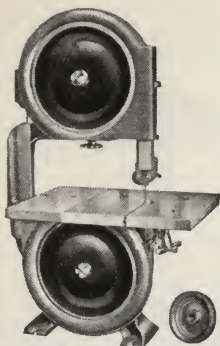
LATHE FACE PLATE. Made of cast iron, 6 inches in diameter, drilled and tapped for attaching to the lathe spindle. 14 screw holes. Suggested Resale, \$0.80 ★NET EACH, \$0.53

DOUBLE LATHE TOOL REST. A convenient accessory. 12 inch cast iron rest and one base with a slot 4-3/8 inches long, a bolt, washer and nut. Suggested Resale, \$1.20..... ★NET EACH, \$0.93

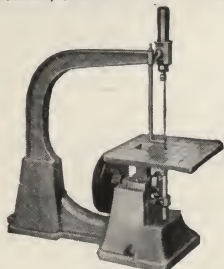
## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



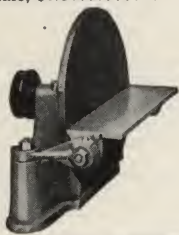
# CONFIDENTIAL DEALERS PRICES



**SPECIAL. BAND SAW, 10 INCH.** For the home shop. Little vibration. 10 inch cast iron disc wheels. Smooth operation. Rigid construction. It is well protected by hinged wheel guards. Rubber faced balance wheels. The 10 by 10 inch machined table tilts to 45 degrees. 5 by 10 inch wood extension. Oilite bronze bearings. 5/8 inch bore. A hand wheel adjusts the tension on the blade. Maximum adjustment of 1-3/4 inches. Adjustable upper and lower blade guide to reduce deflection of the blade. Heavy cast iron frame and trunnion machined for accurate adjustment. 4 inch V-Belt pulley. No motor. Capacity 4 inches. 10 inch depth of throat, it will saw to the center of a 20 inch circle. 1/4 by 64 inch saw blade, 6 teeth to the inch. Recommended speed is 1080 R.P.M. 27-1/2 inches high. 18-5/8 inches deep. 10 inches wide. Shipping weight 53 pounds. Suggested Resale, \$18.00.....★NET EACH, \$12.00

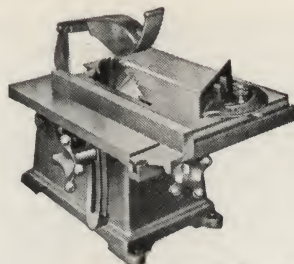


**SPECIAL. JIG SAW.** For the home craftsman. The 4 inch V-belt pulley is mounted on the back of the table and mechanism so the operator can tilt the table either way. The cast iron base extends the full length of the machine giving solid support to the arm, mechanism and table. The saw can be belted from either side. No motor. 16-1/2 inches deep. 15-1/2 inches high. 6 by 15 inches overall. The throat is 10 inches allowing to saw to center of a 20 inch panel. The 6 by 6 inch saw table is adjustable. 1/2 inch main shaft with long bearing. 4 inch V-belt pulley. No belt. Adjustable enclosed tension spring. It uses any standard end jig saw blade. Adjustable saw guide. Recommended speed 750 to 900 R.P.M. Net weight, 14 pounds. Suggested Resale, \$5.30.....★NET EACH, \$3.53



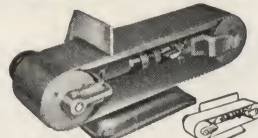
**SPECIAL. DISC SANDER.** Very useful for the home workshop. Mitres and bevels can be sanded from the heaviest materials used in homeshop work. Radii, curves and circles can be sanded to size and shape. Recommended for speed of 1750 to 2250 R.P.M. No motor. 11-1/2 inches wide. 7-1/4 inches deep. 9 inches high. The disc diameter is 8-1/2 inches. 1/2 inch shaft. 2-1/4 inch bearing. 2-5/8 by 9 inch table. Adjustable for angles and bevels. With 2-1/2 inch V-belt pulley. 3-1/2 inch base. Net weight, 11-1/2 pounds. Standard sheets of sandpaper or emery cloth can be used. Suggested resale, \$5.00.....★NET EACH, \$3.33

**SANDER DISC CLAMP.** To facilitate attaching fresh sand paper on the disc sander. It is a cast iron plate 8-1/2 inches in diameter and 4 special clamp bolts and nuts to hold the plate and sander paper tightly to the sander face while the glue is drying. Net weight, 2-1/4 pounds. Suggested resale, \$0.80.....★NET EACH, \$0.53



**SPECIAL. 6 INCH BENCH SAW.** For home use. The cast iron table, 11 by 14 inches, can be tilted by an instant adjustment of the clamping hand wheel. The 6 inch blade with a cutting capacity of 1-7/8 inches is raised, lowered and held in position on the saw arbor by a clamping hand wheel. Saw guard with splitter. The rip fence and mitre gauge are accurate and are quickly set for the cutting widths and angle desired. Oilite bushing. Snap-shut oil cups on the arbor housing. A graduating scale for setting the saw for a desired cut is part of the clamping device. 1-3/4 inch V-belt saw pulley. No belt. No motor. Overall height is 9-1/2 inches. Height to saw table is 6-3/4 inches. 16 inches deep. 14 inches overall. Base measures 6-1/4 by 12 inches. A 1/4 H.P. 1720 R.P.M. motor with 4 inch V-belt pulley is recommended, motor and pulley are extra. Net weight, 32 pounds. Suggested Resale, \$11.00.....★NET EACH, \$7.33

**SPECIAL. 8 INCH BENCH SAW.** For sawing up to 3 inches. Instant table tilt adjustment to any degree up to 45 degrees. Quick adjustment of the saw blade height up to 3 inches. Accurate, adjustable, milled steel rip fence. Precision mitre gauge. Needle bearings. Machined table top 13 by 19 inches. 5/8 inch saw arbor. Cast iron base 7-1/2 by 16-1/2 inches, well ribbed for strength with an accurate splitter and guard. The saw blade height, the table tilt, and rip fence are adjusted with free running hand screws. Overall height, 12-3/4 inches. Height to table surface is 9-1/8 inches. Depth overall is 21-1/2 inches. Overall width, 14-1/2 inches. 8 inch diameter saw blade. 2 inch V-belt pulley. No belt. No motor. 1/2 H.P. motor is recommended. Net weight, 57 pounds. Suggested Resale, \$22.50.....★NET EACH, \$15.00



**SPECIAL. BELT SANDER, 4 INCH.** For the home workshop. Accurate alignment of the table and belt drums. Mechanical sanding is fast and accurate. Large heavy base. Accurate, machined drums, 4 inches in diameter and 4 inches wide. No motor. It is recommended that you use a 1/4 horse power motor 1725 R.P.M. with a 2 inch V-belt motor pulley. The table is an integral part of the frame assuring perfect table alignment, 4 inches wide, 12 inches long, 6-3/4 inches high. Adjustable cross rest 2 by 4 inches and a long back rest 11-1/2 by 2 inches, 4 inch belt, 1 belt furnished. Belt length can be adjusted from 40-1/2 to 42-1/2 inches. Horizontal and vertical adjustments. 18-1/2 inches long. 7-1/2 inches wide. 9 inches high overall. 2-1/2 inch V-belt pulley, no belt. Oilite bronze bearings. Speed, 1400 R.P.M. Shipping weight, 30 pounds. Suggested Resale, \$8.00.....★NET EACH, \$5.33

Extra Sander Belt 41 by 4 inches....★NET EACH, \$0.40



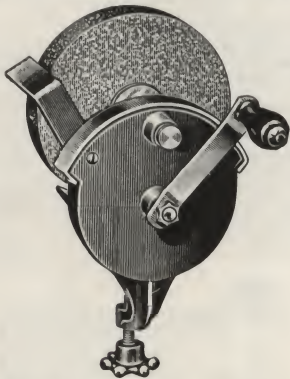
**SPECIAL. DRILL PRESS.** Simple in design, ruggedly constructed, small in size, for the home craftsman. Cast iron base, arm, and table. 15 inches overall. 12 inches deep. 5-1/2 inches wide. 6 inch diameter swinging drill press table, adjustable height. 1/2 inch spindle. 2-1/4 inch spindle travel. Drill chuck will take up to 1/4 inch drills. With a 2 inch V-belt pulley on the shaft. The upper drive has 2-1/2 inch V-belt pulleys with a V-belt. Net weight, 13-1/2 pounds. Suggested resale, \$5.30.....★NET EACH, \$3.53

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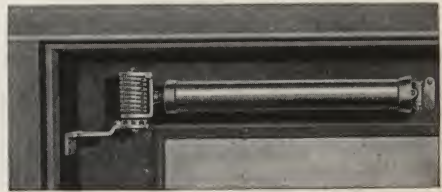
# CONFIDENTIAL DEALERS PRICES

Page		
366	Entire Page.....	Prices As Shown
367	Entire Page.....	Prices As Shown
368	Fig. 279. Crow Bars.....	★NET EACH, \$2.30
	Balance of Page.....	Prices As Shown
369	Entire Page.....	Prices As Shown
370	Fig. 1667 New Easy Bolt Clipper, Side Cutter Clipper	
	Jaws Only.....	LIST LESS 40%
	Fig. 4951 Porter Swivel Head Bolt Cutter.....	LIST LESS 40%
	Fig. 3443 Porter's Bench Cutter.....	★NET EACH, \$6.00
	Figs. 3007-3663 Hypowa Bolt Cutters, Nut Splitter, and Shear Cutter.....	LIST LESS 40%
	Balance of Page.....	Prices As Shown
371	Entire Page.....	Prices As Shown
372	Fig. 4962 Utility Stone File	
	1 to 5.....	DEDUCT 20%
	6 to 24.....	DEDUCT 30%
	25 or More.....	DEDUCT 35%
	Fig. 4961 Crystolon Scythe Stones	
	1 to 5.....	DEDUCT 20%
	6 to 24.....	DEDUCT 30%
	25 or More.....	DEDUCT 35%
	Fig. 1758 Tubular Steel Frame	
	Grindstone.....	★NET EACH, \$9.50
	Balance of Page.....	Prices As Shown
373	Allen's Emery Vitrified Grinding Wheel	
	For steel grinding.....	LIST LESS 70%
	For cast iron grinding.....	LIST LESS 65%
	All Other Grinding Wheels.....	Prices As Shown

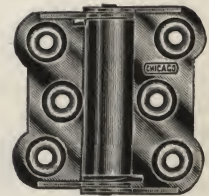


373A	Fig. 4963 Utility Hand Grinder	
	Model U4½.....	List Each, \$1.25
	Model U4.....	List Each, \$1.32
	Model U5.....	List Each, \$1.78
	Model U6.....	List Each, \$2.44
	ABOVE LIST.....	LESS 40%
	Fig. 2778 Prairie Hand Grinder	
	Model 4.....	List Each, \$2.54
	Model 5.....	List Each, \$3.86
	Model 6.....	List Each, \$5.00
	Model 7.....	List Each, \$5.98
	ABOVE LIST.....	LESS 40%
	Fig. 3880 Sturdibilt Hand Grinders	
	Model 24.....	List Each, \$4.98
	Model 25.....	List Each, \$6.54
	Model 26.....	List Each, \$8.42
	Model 28.....	List Each, \$13.30
	ABOVE LIST.....	LESS 40%
	Balance of Page.....	Prices As Shown
373B	Fig. 2741 Flint (Sand) Paper in 9x11 Sheets	
	1 to 23 Sheets.....	LIST LESS 20%
	1 to 19 Quires (24 Sheets to Quire).....	LIST LESS 61%
	1 Ream or More (480 Sheets to Ream).....	LIST LESS 61-20%
	Fig. 4964 Emery Cloth in 9x11 Sheets	
	1 to 23 Sheets.....	LIST LESS 20%
	1 to 19 Quires (24 Sheets to Quire).....	LIST LESS 40%
	1 Ream or More (480 Sheets to Ream).....	LIST LESS 40-20%
	Fig. 2740 Aloxit Cloth, 1, 1½ or 2 Inch Widths	
	1 to 5 Rolls of 50 Yards.....	LIST LESS 30%
	6 or More Rolls of 50 Yards.....	LIST LESS 37%
	Fig. 4965 Aloxit Cloth, 2½, 3, 9, 18 or 28 Inch Widths	
	1 or 2 Rolls of 50 Yards.....	LIST LESS 17%
	3 or More Rolls of 50 Yards.....	LIST LESS 25%
	Balance of Page.....	Prices As Shown

Page		
374	Pike India Oil Stones	
	1 to 5.....	LIST LESS 20%
	6 to 24.....	LIST LESS 30%
	25 or More.....	LIST LESS 35%
375	Fig. 2736 Metal Workers' Crayon	
	Round.....	LIST GROSS, \$4.00
	Square.....	LIST GROSS, \$2.20
	Flat.....	LIST GROSS, \$2.40
	Flat, Wrapped.....	LIST GROSS, \$3.20
	1 to 143.....	ABOVE LIST NET
	1 Gross or More.....	ABOVE LIST LESS 25%
	Fig. 3774 White Railroad Chalk.....	LIST GROSS, \$2.88
	1 to 5 Gross.....	ABOVE LIST LESS 25%
	6 Gross or More.....	ABOVE LIST LESS 33-1/3%
	Fig. 3242 Half Round Carpenters' Chalk	
	White.....	LIST GROSS, \$2.50
	Red or Blue.....	LIST GROSS, \$3.01
	1/2 to 5 Gross.....	ABOVE LIST LESS 25%
	6 or More Gross.....	ABOVE LIST LESS 33-1/3%
	Figs 4157, 4158 and 4967 Norton Door Closers	
		LIST LESS 40%



Figs. 4968 and 4969 Norton Screen Door Closers  
LIST LESS 40%  
Balance of Page..... Prices As Shown



CHICAGO 'RELIANCE' DOOR SPRINGS. Not shown in Allen's Red Book. Adjustable tension. Large diameter heavy gauge tempered steel spring. Heavy cast iron ends with a projecting flange with 3 screw holes. Without screws.

Length, Inches	7	8	10
Mfrs. No.	270L	270M	270H
No. In Package	12	6	6
★NET DOZEN	\$1.75	\$2.35	\$3.50

CHICAGO SCREEN DOOR SPRING HINGES. Not shown in Allen's Red Book. Non-adjustable tension. Made of heavy gauge wrought steel. 2-3/4 x 2-3/4 inches. Japanned Black.....★NET DOZEN PAIR, \$1.10

375A	Arc Welded Bench Legs, Fig. 3472 to 3694	LIST LESS 10%
	Fig. 3698 Bar Stock Racks	
	Double Arms.....	★NET EACH, \$15.60
	Single Arms.....	★NET EACH, \$12.10
	Balance of Page.....	Prices As Shown
375B	Entire Page.....	Prices As Shown
376	Entire Page.....	Prices As Shown
377	Figs. 3445R and 3445J Brass Semi-Finished Hexagon Nuts	
	1 to 99.....	LIST LESS 50%
	100 to 999.....	LIST LESS 60%
	1000 or More.....	LIST LESS 60-10%
	Fig. 3447 Brass Hexagon Cap Nuts	
	1 to 99.....	LIST PLUS 10%
	100 or More.....	LIST NET

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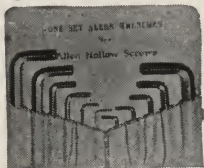


# CONFIDENTIAL DEALERS PRICES

Page 377 Fig. 3444 Brass Hexagon Head Cap Screws  
 Con. 1 to 99.....LIST LESS 45%  
 100 to 400.....LIST LESS 60%  
 500 or More.....LIST LESS 60-10%

Fig. 3626 Brass Washers  
 1 to 5 Pounds.....LIST LESS 30%  
 6 Pounds or More.....LIST LESS 33-1/3%

Fig. 2621 Fillister Head Steel Cap Screws  
 100 or More (Full Packages).....LIST LESS 54-10%  
 Broken Packages.....LIST LESS 50%



378 Allen Set Screws and Pipe Plugs  
 Broken Packages.....LIST LESS 30%  
 Full Packages.....LIST LESS 45%  
 Extensions and Wrenches.....Prices As Shown  
**SPECIAL!** Allen Normalized Wrench Set. For hollow head screws up to 1-1/4 inch set screw in diameter. A complete set of 11 short arm normalized hexagonal wrenches. In canvas bag. Not shown in Allen's Red Book.  
 Mfrs. 603. LIST SET, \$1.25.....LESS 25%

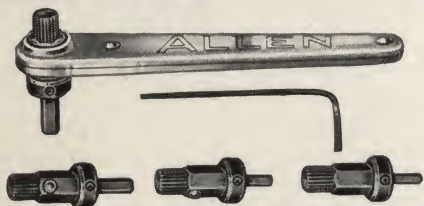


378 **SPECIAL!** Allen Service Kit of Hollow Set Screws with wrenches to fit. A neat compartment box containing 6 Allen Hollow Set Screws in sizes No. 10, 1/4, 5/16 and 3/8 inch. Not shown in Allen's Red Book.  
 Mfrs. 601. LIST KIT, \$1.25.....LESS 25%

**SPECIAL!** Allen Hollow Set Screw Assortment with Wrenches. 12 sizes of cup point, N. C. Thread, hollow set screws: 10—No. 10 by 3/16 inches long; 10—No. 10 by 1/4; 10—1/4 by 1/4; 10—1/4 by 3/8; 10—5/16 by 5/16; 10—5/16 by 3/8; 10—3/8 by 3/8; 10—3/8 by 1/2; 10—1/2 by 1/2; 10—1/2 by 5/8; 10—5/8 by 5/8 and 5—5/8 by 1. Each size in a separate box. Not shown in Allen's Red Book.  
 Mfrs. 608. LIST, \$8.18.....LESS 45%



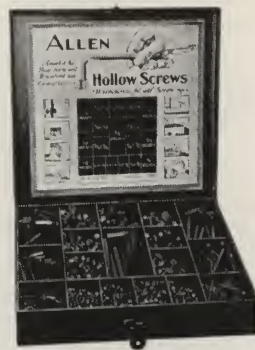
**SPECIAL!** Allen Hollow Set Screw Junior Wrench Kit. 7 hexagon wrenches: for set screws No. 8, 10, 1/4, 5/16, 3/8, 7/16, and 1/2; and for cap screws Nos. 4, 5, 6, 8, 10, 1/4 and 5/16. In leather envelope. Not shown in Allen's Red Book.  
 Mfrs. 604. LIST \$0.50.....LESS 25%



**SPECIAL!** Allen Knurled Head Ratchet Wrench Set. Not shown in Allen's Red Book.

No.	Hex. Size	Fits Set Screw	Fits Cap Screw
1	5/64	No. 8	No. 4
2	3/32	No. 10	No. 5
3	1/8	1/4	No. 8
4	5/32	5/16	No. 10

Mfrs. 611. LIST SET, \$1.25.....LESS 25%

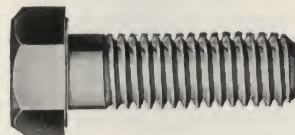


**SPECIAL!** Allen Boxed Hollow Set Screw Assortment. For the shop, home, farm, etc. An ideal compartment metal display box for the counter. 590 HOLLOW SET SCREWS: 100—No. 10 by 3/16; 50—No. 10 by 1/4; 100—1/4 by 1/4; 50—1/4 by 3/8; 100—5/16 by 5/16; 50 5/16 by 3/8; 50—3/8 by 3/8; 50—3/8 by 1/2; 20—7/16 by 7/16; 10—1/2 by 1/2; and 10—5/8 by 5/8. 115 hexagon wrenches: 25 for No. 4. 25 for 1/4; 25 for 5/16; 25 for 3/8; 5 for 7/16; 5 for 1/2; and 5 for 5/8. Not shown in Allen's Red Book.  
 Mfrs. 602. LIST, \$33.80.....LESS 45%

Page 379 Fig. 2938 Allen Socket Head Cap Screws  
 Broken Packages.....LIST LESS 25%  
 Full Packages.....LIST LESS 40%  
 Fig. 4099 Allen Shoulder Screws.....Prices As Shown

380 Fig. 1670 Steel Set Screws.....LIST LESS 73%  
 Broken Packages.....LIST LESS 73-10%  
 Full Packages.....LIST LESS 75-10%  
 Fig. 1670A Set Screw Assortment ★NET PACKAGE, \$1.60

Fig. 2771 Headless Set Screws  
 Fractional Sizes.....LIST LESS 65%  
 Broken Packages.....LIST LESS 68-10%  
 Full Packages.....LIST LESS 70%  
 Machine Screw Sizes  
 Broken Packages.....LIST LESS 70%  
 Full Packages.....LIST LESS 75-10%  
 Fig. 2622 Flat Head Steel Cap Screws  
 Broken Packages.....LIST LESS 35%  
 Full Packages.....LIST LESS 39-10%



381 Fig. 1669 Hexagon Head Steel Cap Screws—  
 N.C. Coarse Pitch  
 Broken Packages.....LIST LESS 65%  
 Full Packages.....LIST LESS 65-10%  
 Fig. 2224 Hexagon Head Steel Cap Screws—  
 N.F. Fine Pitch.  
 Broken Packages.....LIST LESS 65%  
 Full Packages.....LIST LESS 65-10%  
 Figs. 2895-2896 Assorted Hexagon Head Cap Screws  
 ★NET PACKAGE, \$0.90

382 Figs. 1682-1683 Iron Machine Screws. Full Packages Only  
 Iron.....LIST LESS 70-10%  
 Iron, Nickel Plated.....LIST LESS 55-10%  
 Figs. 1684-1685 Brass Machine Screws. Full Packages Only  
 Brass.....LIST LESS 67-1/2-10%  
 Brass, Nickel Plated.....LIST LESS 60-10%



383 Fig. 2218-I Iron Wood Screws. Full Packages Only.  
 Flat Head.....LIST LESS 60-10%  
 50 Gross or More.....LIST LESS 60-20-10%  
 Round Head.....LIST LESS 58-10%  
 50 Gross or More.....LIST LESS 58-20-10%  
 Fig. 2218B Brass Wood Screws. Full Packages Only.  
 Flat Head.....LIST LESS 74-10%  
 50 Gross or More.....LIST LESS 74-20-10%  
 Round Head.....LIST LESS 72-1/2-10%  
 50 Gross or More.....LIST LESS 72-1/2-20-10%  
 Fig. 4975 Metal Tapping Screws. LIST LESS 50-10%

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Page

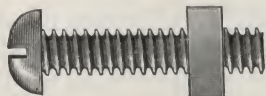
- 384 Fig. 1671 Carriage Bolts, with Square Nuts**
- | Bolt Sizes            | Broken Packages | Full Packages |
|-----------------------|-----------------|---------------|
| Up to 1/2 Inch        | 60-5-5% OFF     | 65-5-5% OFF   |
| 9/16 to 1 Inch        | 55-10-5% OFF    | 60-10-5% OFF  |
| 1-1/8 Inch and Larger | 60-5-5% OFF     | 60-5-5% OFF   |
- Philips Recessed Head Screws and Bolts  
Figs. 4981 to 4985.....Prices on Request



- 385 Fig. 1673 Machine Bolts, with Square Nuts**
- | Sizes                 | Broken Packages | Full Packages |
|-----------------------|-----------------|---------------|
| Up to 1/2 Inch        | 60-5-5% OFF     | 65-5-5% OFF   |
| 9/16 to 1 Inch        | 55-10-5% OFF    | 60-10-5% OFF  |
| 1-1/8 Inch and Larger | 60-5-5% OFF     | 60-5-5% OFF   |

- Fig. 1674 Coach and Lag Screws  
Broken Packages.....LIST LESS 55-10-5%  
Full Packages.....LIST LESS 60-10-5%

- Fig. 2624 Hot Pressed Tapped Nuts**
- | Bolt Sizes            | Up to 99 Pounds | 100 Pounds or More |
|-----------------------|-----------------|--------------------|
| Up to 1/2 Inch        | 60-5-5% OFF     | 65-5-5% OFF        |
| 9/16 to 1 Inch        | 55-10-5% OFF    | 60-10-5% OFF       |
| 1-1/8 Inch and Larger | 60-5-5% OFF     | 60-5-5% OFF        |



- 386 Figs. 1680-1681 Stove Bolts**
- |                   |               |
|-------------------|---------------|
| Mull Boxes.....   | LIST LESS 70% |
| 1000 or More..... | LIST LESS 75% |

- Figs. 1675-1677 Plow Bolts**
- |                         |                 |
|-------------------------|-----------------|
| Up to 99 Pounds.....    | LIST LESS 45-5% |
| 100 Pounds or More..... | LIST LESS 50-5% |

- Fig. 2878 Two Wing Spring Toggle Bolts**
- |                   |                  |
|-------------------|------------------|
| Full Boxes.....   | LIST LESS 45-10% |
| Broken Boxes..... | LIST LESS 45%    |

- Fig. 2208 Step or Fender Bolts**
- |                   |                  |
|-------------------|------------------|
| 1 to 99.....      | LIST LESS 45%    |
| 100 to 999.....   | LIST LESS 50%    |
| 1000 or More..... | LIST LESS 50-10% |

- Carriage or Machine Bolt Assortments**  
Fig. 3722 Carriage.....★NET BOX, \$0.40  
Fig. 3723 Machine.....★NET BOX, \$0.45

- 387 Figs. 1687-1687J Semi-Finished Hexagon Nuts**
- | Size         | *Broken Package | *Full Package | *Full Keg |
|--------------|-----------------|---------------|-----------|
| Inches       |                 |               |           |
| 1/4 to 1/2   | 60%             | 65-10%        | 65-10%    |
| 9/16 to 1    | 55%             | 60-10%        | 60-10%    |
| 1-1/8 and Up | 50%             | 60-5%         | 60-5%     |

- Figs. 2225-2226 Steel and Brass Machine Screw Nuts**
- | Steel  | Steel, N.Pl. | Brass  | Brass, N.Pl. |
|--------|--------------|--------|--------------|
| 55-10% | 35-10%       | 75-10% | 67-1/2-10%   |

- Fig. 2979 Wing Nuts, Malleable Iron**
- |                  |                  |
|------------------|------------------|
| 1 to 99.....     | LIST LESS 25%    |
| 100 or More..... | LIST LESS 30-10% |

- Fig. 2217 Wing Nuts, Pressed Steel.....DEDUCT 10%**

- Fig. 2216 Plain Semi-Finished Nuts S. A. E.**
- | Size         | *Broken Package | *Full Package | *Full Keg |
|--------------|-----------------|---------------|-----------|
| Inches       |                 |               |           |
| 1/4 to 1/2   | 65%             | 70%           | 70%       |
| 9/16 to 1    | 60%             | 65%           | 65%       |
| 1-1/8 and Up | 50%             | 60-5%         | 60-5%     |

- Fig. 2215 Semi-Finished Castle Nuts, S.A.E.**
- | Size         | *Broken Package | *Full Package | *Full Keg |
|--------------|-----------------|---------------|-----------|
| Inches       |                 |               |           |
| 1/4 to 1/2   | 65%             | 70%           | 70%       |
| 9/16 to 1    | 60%             | 65%           | 65%       |
| 1-1/8 and Up | 50%             | 60-5%         | 60-5%     |

- Fig. 2905 Thumb Screws, Malleable Iron**
- |                   |                  |
|-------------------|------------------|
| 1 to 99.....      | LIST LESS 30%    |
| 100 to 999.....   | LIST LESS 40%    |
| 1000 or More..... | LIST LESS 40-10% |

- 387A Figs. 4979 and 4980 Quick Repair Washers and Thrust Collars**
- |   |                   |
|---|-------------------|
| Steel Overlatch Washers, 100 or More..... | LIST LESS 45%     |
| Steel Overlatch Washers, Up to 99.....    | LIST LESS 33 1/4% |
| Type B Malleable Washers.....             | LIST LESS 25%     |
| Type B Bronze Washers.....                | LIST LESS 25%     |
| Type B Malleable Thrust Collars.....      | LIST LESS 15%     |
| Type B Bronze Thrust Collars.....         | LIST LESS 15%     |

- Fig. 1969 Milled Studs.....Prices As Shown  
Fig. 1699 Boiler Stay Bolts.....Prices As Shown  
Fig. 2024 Tool Steel Balls.....LIST LESS 60-10%

387B Washers and Bushings.....Prices As Shown



**SPECIAL! Shakeproof Lock Washer Self-Seller Display.** Not shown in Allen's Red Book. Lock washers with patented tapered-twisted teeth that LOCK TIGHTER, DEFY VIBRATION—No more loose nuts or screws. The display is 14 x 17 inches and can be used on the wall or counter. Each 10c ring holds an assortment of six sizes of both External and Internal types from 1/8 to 1/2 inch.  
30—10c Ring Display Board.....LIST, \$3.00  
30—10c Ring Refill Package.....LIST, \$2.70  
DISCOUNT.....ABOVE LISTS LESS 33 1/3%



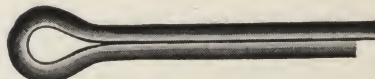
Page  
387B  
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**SPECIAL! Shakeproof Lock Washer Wall Rack.** Not shown in Allen's Red Book. The rack is 11 1/4 by 14 inches and holds 6 rings of Shakeproof Lock Washers. One size on a ring, 90—1/8 inch, 90—1/4 inch; 90—1/2 inch; 75—3/8 inch; 50—1/2 inch, and 50—1/4 inch.  
EXTERNAL TYPE.....★NET RACK, \$1.25  
INTERNAL TYPE.....★NET RACK, \$1.25

**Lock Washer Assortments**  
Fig. 2819, 50 Assorted.....★NET CAN, \$0.12  
Fig. 2819-39, 39 Assorted.....★NET CAN, \$0.05  
Fig. 2214 Garage Assortment.....★NET BOX, \$1.25

**SPECIAL! Fig. 2211 Wrought Iron Washers IN 1 AND 5 POUND PACKAGES.** Not Shown in Red Book.

Package, Pounds.....	5	1
1/8 Inch.....	Net Package, \$0.71	\$0.22
1/4 Inch.....	Net Package, \$0.58	\$0.18
3/8 Inch.....	Net Package, \$0.52	\$0.17
1/2 Inch.....	Net Package, \$0.45	\$0.15
5/8 Inch.....	Net Package, \$0.40	\$0.14
3/4 Inch.....	Net Package, \$0.37	\$0.13
7/8 Inch.....	Net Package, \$0.36	\$0.12
1 Inch.....	Net Package, \$0.35	\$0.11
1 1/8 Inch.....	Net Package, \$0.33	\$0.10



- 388 Fig. 1702 Steel Spring Cotter Pins**
- |                      |               |
|----------------------|---------------|
| Broken Packages..... | LIST LESS 25% |
| Full Packages.....   | LIST LESS 50% |

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Page 388  
**Con.** GARAGE COTTER PIN ASSORTMENT. 500 Cotter Pins in fibre carton.  
 35—1/16x1/2 135—3/32x1 10—1/8x1-3/4  
 50—1/16x3/4 25—3/32x1-1/4 35—1/8x2  
 60—1/16x1 20—3/32x1-1/2 10—5/32x1-1/2  
 25—1/16x1-1/4 20—1/8x1 5—5/32x2  
 35—3/32x3/4 35—1/8x1-1/2  
 ★NET EACH, \$0.18

AUTO OWNER'S COTTER PIN ASSORTMENT. 100 Cotter Pins in fibre container of sizes most frequently used in automobiles.  
 10—1/16x1/2 5—1/16x1-1/4 15—3/32x3/4  
 15—1/16x3/4 5—1/8x1 20—3/32x1  
 20—1/16x1 5—1/8x1-1/2 5—3/32x1-1/2  
 1 to 19. . . . .★NET EACH, \$0.07  
 20 in carton. . . . .★NET EACH, \$0.06

AGRICULTURAL & TRACTOR COTTER PIN ASSORTMENT. 100 Cotter Pins in fibre carton of sizes most frequently used on farm implements.  
 20—3/32x3/4 10—1/8x1-1/4 10—1/4x2  
 20—3/32x1 10—3/16x1-1/4 5—5/16x2  
 10—1/8x1 10—3/16x1-1/2 5—5/16x2-1/2  
 ★NET EACH, \$0.25

HARDWARE COTTER PIN ASSORTMENT. 100 Cotter Pins in fibre carton of sizes most frequently sold by hardware stores.  
 10—3/32x3/4 10—3/16x1-1/4 10—1/4x2  
 10—3/32x1 10—3/16x1-1/2 10—5/16x2  
 10—1/8x1 10—1/4x1-3/4 10—5/16x2-1/2  
 ★NET EACH, \$0.25

Fig. 1692 Round Head Iron Rivets, 200 Pound Kegs, Add Extras for Smaller Lots. . . . .LIST LESS 50-10%  
 Flathead Tinners' Rivets, Black. . . . .LIST LESS 60-5%

389 Figs. 4987 and 4986 Rawlplugs. . . . .LIST LESS 33 1/2%  
 Balance of Page. . . . .Prices As Shown

390 Fig. 2589 Cordwood Saws, Guaranteed Quality  

Diam. Inch	18	20	22	24	26
Gauge	13	13	12	11	11
★NET EACH	\$2.25	\$2.75	\$3.25	\$3.70	\$4.10
Diam. Inch	28	30	32	34	36
Gauge	10	10	10	9	9
★NET EACH	\$4.80	\$5.50	\$6.40	\$9.30	\$10.65

Figs. 4988-4989 All Steel Tilting Table Saw Frames DEDUCT 10%

Fig. 2974 Flat Table Saw Frame. . . . .★NET EACH, \$28.00

Fig. 4990 Front End Tractor Saw Frames Without Saw or Belt ★NET EACH, \$24.95

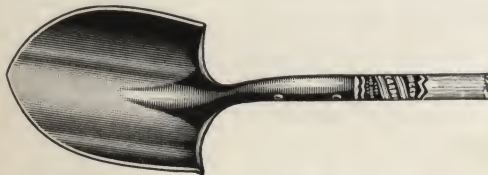
30 Inch Cordwood Saw. . . . .★NET EACH, \$5.50

Belt. . . . .★NET EACH, \$6.20

391 Figs. 1579-1580 Circular Saw Mandrels  

Size 1. . . . .	★NET EACH, \$2.50
Size 2. . . . .	★NET EACH, \$3.00
Size 3. . . . .	★NET EACH, \$3.50
Size 4. . . . .	★NET EACH, \$4.75
Size 5. . . . .	★NET EACH, \$5.35
Size 6. . . . .	★NET EACH, \$5.95
Size 7. . . . .	★NET EACH, \$6.55
Size 8. . . . .	★NET EACH, \$7.10
Size 9. . . . .	★NET EACH, \$11.00
Size 10. . . . .	★NET EACH, \$13.75

 Balance of Page. . . . .Prices As Shown



392 All Shovels and Spades  
 1 to 5. . . . .LIST LESS 33-1/3%  
 6 or More. . . . .LIST LESS 40%

393 All Shovels and spoons  
 1 to 5. . . . .LIST LESS 33-1/3%  
 6 or More. . . . .LIST LESS 40%

393A All Scoops and Shovels  
 1 to 5. . . . .LIST LESS 33-1/3%  
 6 or More. . . . .LIST LESS 40%

393B All Shovels, Forks, Etc.  
 1 to 5. . . . .LIST LESS 33-1/3%  
 6 or More. . . . .LIST LESS 40%

394 Bassick Truck Casters. . . . .Prices As Shown

395 Rol-Ezy Truck Casters and Wheels. . . . .Prices As Shown

396 Fig. 3128 Box Trucks  

Size 1, 16 x 18 Inches. . . . .	★NET EACH, \$4.90
Size 2, 16 x 24 Inches. . . . .	★NET EACH, \$5.60
Size 3, 18 x 26 Inches. . . . .	★NET EACH, \$6.30

 All Other Trucks. . . . .Prices As Shown

Page 397 Entire Page. . . . .Prices As Shown

397A Entire Page. . . . .Prices As Shown

397B All Wheelbarrows. . . . .Prices As Shown

398 Fig. 5018 Pneumatic Rubber Wheels For Wheelbarrows  
 With Plain Bearing. . . . .★NET EACH, \$6.40  
 With Hyatt Roller Bearing. . . . .★NET EACH, \$7.04  
 Balance of Page. . . . .Prices As Shown

399 Fig. 4363 Dietz Economy Floodlight. . . . .★NET EACH, \$5.33

Fig. 4363B Angle Bracket. . . . .★NET EACH, \$0.60

Fig. 5294 Dietz Garage Floodlight. . . . .★NET EACH, \$7.40

Fig. 5291 Dietz Road and Fog Light. . . . .★NET EACH, \$2.17

Fig. 4240 Little Wizard Lanterns

With Ruby Globe. . . . .★NET DOZEN, \$11.70

With Clear Globe. . . . .★NET DOZEN, \$10.00

Globes. . . . .Prices As Shown

Fig. 2140 Monarch Contractors Lanterns

With White Globe. . . . .★NET DOZEN, \$9.10

With Ruby Globe. . . . .★NET DOZEN, \$10.70

Fig. 5020 Anthes Trukflar. . . . .LIST LESS 33 1/2%

Fig. 4364 Toledo Torches

1 to 11. . . . .★NET EACH, \$1.20

12 or More. . . . .★NET EACH, \$1.00

Extra Wicks. . . . .★NET DOZEN, \$1.20

Extra Wicks. . . . .★NET GROSS, \$14.00

Fig. 5292 Burgess Twin-Six Lantern. . . . .Prices As Shown

Fig. 5293 Twin-Six Utility Battery. . . . .Prices As Shown

399A Fig. 3949 All-Steel Tool Maker's and Machinist's Case

Mfrs. 516. 16x8-1/2x13 Inches. . . . .★NET EACH, \$12.40

Mfrs. 520. 20x8-1/2x13 Inches. . . . .★NET EACH, \$13.15

Balance of Page. . . . .Prices As Shown

399B Figs. 3543-3543B Jenkins Air Guns. . . . .LIST NET

Balance of Page. . . . .Prices As Shown

400 Fig. 3126 Heavy Galvanized Water Pails  

Size	Trade	★NET EACH	★NET DOZEN
No.	Capacity		
1310	10 Quart	\$0.50	\$5.00
1312	12 Quart	\$0.53	\$5.25
1314	14 Quart	\$0.57	\$5.65
1316	16 Quart	\$0.63	\$6.25

Fig. 3126S Standard Galvanized Water Pails

1102 10 Quart \$0.25 \$2.55

1122 12 Quart \$0.28 \$2.78

1142 14 Quart \$0.32 \$3.20

Fig. 5028 Radiator Filling Cans, 12 Quart

Standard Weight. . . . .★NET EACH, \$1.25

Standard Weight. . . . .★NET DOZEN, \$12.50

Extra Heavy Weight. . . . .★NET EACH, \$1.90

Extra Heavy Weight. . . . .★NET DOZEN, \$18.75

Fig. 6800 Cement or Contractor's Galvanized Pails, 14 Quart

Mfrs. 14. . . . .★NET EACH, \$1.13

Mfrs. 14. . . . .★NET DOZEN, \$11.25

Mfrs. 140. . . . .★NET EACH, \$1.32

Mfrs. 140. . . . .★NET DOZEN, \$13.25

Fig. 5029 Tractor Filling Cans, 5 Gallon

Mfrs. 625. . . . .★NET EACH, \$0.97

Mfrs. 625. . . . .★NET DOZEN, \$9.70

Fig. 3379 Galvanized Cans

Size	Finish	Gallons Actual	★NET EACH	★NET DOZEN
No.				
101	Galvanized	1	\$0.35	\$3.50
102	Galvanized	2 1/4	\$0.50	\$4.90
105	Galvanized	5 1/4	\$0.80	\$8.00
155	Galvanized	5 1/4	\$0.96	\$9.60
501	Painted Red	1	\$0.40	\$4.00
502	Painted Red	2 1/4	\$0.53	\$5.30
505	Painted Red	5 1/4	\$0.88	\$8.75
555	Painted Red	5 1/4	\$1.03	\$10.30



Fig. 3378 Sprinkling Cans

Size	Trade	★NET EACH	★NET DOZEN
No.	Capacity		
614	4 Quart	\$0.65	\$6.55
616	6 Quart	\$0.73	\$7.25
618	8 Quart	\$0.82	\$8.20
620	10 Quart	\$0.90	\$9.05
622	12 Quart	\$1.05	\$10.25
626	16 Quart	\$1.30	\$12.80

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

Page 400	Fig. 3381 Water Dippers.....	★NET DOZEN, \$1.38	
Con.	Fig. 3124 Japanned Water Coolers		
Size	Trade	★NET	★NET
No.	Capacity	EACH	DOZEN
3	3 Gallon	\$2.75	\$27.30
4	4 Gallon	\$3.05	\$30.30
6	6 Gallon	\$3.60	\$36.00
8	8 Gallon	\$4.50	\$45.00

401	Fig. 3376 Ash Cans		
Size	Actual	★NET	★NET
No.	Capacity	EACH	DOZEN
1618	20 Gallons	\$4.40	\$44.10
1820	26 Gallons	\$4.90	\$49.60
2022	32 Gallons	\$5.70	\$56.70

Fig. 5030	Utility Steel Baskets		
Size	Capacity	★NET	★NET
No.	Bushels	EACH	DOZEN
150	1	\$0.75	\$7.50
175	1½	\$1.15	\$11.25

Fig. 5031	Ash and Garbage Cans		
Size	Actual	★NET	★NET
No.	Gallons	EACH	DOZEN
ASH CAN—Straight Side			
118	19½	\$1.85	\$18.45
123	23¼	\$2.05	\$20.20
ASH CAN—Tapered Side			
131	31	\$2.25	\$22.50
GARBAGE CANS—Bail Handle			
02	5½	\$0.90	\$8.68
03	8½	\$1.00	\$10.00
04	9½	\$1.15	\$11.25

Fig. 5032	Tractor or Automobile Funnels		
Size	Capacity	★NET	★NET
No.	Quarts	EACH	DOZEN
31	3½	\$0.55	\$5.25
51	13	\$0.80	\$7.90

Fig. 5033	Utility Measures		
Size	Actual	★NET	★NET
No.	Quarts	EACH	DOZEN
384	1	\$0.42	\$4.15
385	2	\$0.50	\$5.00
386	4	\$0.60	\$6.00

Fig. 5034	Huffman Self-Drain Oil Measures		
1 Quart.....		★NET EACH, \$3.25	
2 Quart.....		★NET EACH, \$3.55	
4 Quart.....		★NET EACH, \$4.35	
5 Quart.....		★NET EACH, \$4.65	
6 Quart.....		★NET EACH, \$4.95	

Fig. 5035	Huffman 'Sealdoyl-Can' Self-Drain Dispensers		
For 1 Quart Can.....		★NET EACH, \$3.60	
For 5 Quart Can.....		★NET EACH, \$4.95	

Fig. 5036	Huffman's 'Sealdoyl-Can' Spout		
For 1 Quart Can.....		★NET EACH, \$1.28	

402	Fig. 2746 Warehouse Brooms, 36 Lb...	★NET DOZEN, \$6.17
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## Pure Palmetto Scrubbing Brushes

Fig. 4437.....	★NET EACH, \$0.25
Fig. 4438.....	★NET EACH, \$0.30
Fig. 4440.....	★NET EACH, \$0.25

Figs. 2616-4532	Floor Brush		
1 to 35.....		LIST LESS 40%	
36 or More.....		LIST LESS 40-10%	

Fig. 2863	Rubber Floor Scrubber		
14 Inch.....		★NET DOZEN, \$3.25	
16 Inch.....		★NET DOZEN, \$3.60	
18 Inch.....		★NET DOZEN, \$3.95	

Fig. 4441	Mop Heads		
16 Ounce.....		★NET DOZEN, \$3.00	
20 Ounce.....		★NET DOZEN, \$3.73	
24 Ounce.....		★NET DOZEN, \$4.56	
32 Ounce.....		★NET DOZEN, \$6.00	

Mop Sticks			
Fig. 4578.....		★NET EACH, \$0.25	
Fig. 4579.....		★NET EACH, \$0.65	

**SPECIAL! Mop Sticks.** Not Shown in Allen's Red Book. For domestic use. 5-1/2 inch head. 42 inch handle.

1 to 11.....★NET EACH, \$0.09  
Lots of 1 Dozen or More.★NET DOZEN, \$0.80

Balance of Page.....Prices As Shown

403	Figs 3201-3727 Wire Wheel Brushes				
Diameter, Inch	6	8	10	12	15
LIST EACH	\$3.30	\$4.00	\$7.34	\$8.36	\$9.25
1 to 5.....					ABOVE LIST LESS 25%
6 to 11.....					ABOVE LIST LESS 33-1/3%
12 or More.....					ABOVE LIST LESS 40%

Page 403	Fig. A40 Curved Handle Wire Brush..	★NET DOZEN, \$1.75
Con.		



Fig. A44	Handle Wire Brush . . . . .	★NET DOZEN, \$2.10
Fig. A31	Flat Back Wire Brush . . . . .	★NET DOZEN, \$2.40
Fig. 3981	Foundry Casting Wire Brush . . . . .	★NET DOZEN, \$4.80
Fig. A35	Rocker Back Wire Brush . . . . .	★NET DOZEN, \$3.60
Fig. A400	Painters Wire Duster . . . . .	★NET DOZEN, \$2.40
Fig. 0416	Creamery Palmetto Brush . . . . .	★NET DOZEN, \$3.00
Fig. 08	Fiber Milk Can Scrub Brush . . . . .	★NET DOZEN, \$3.50

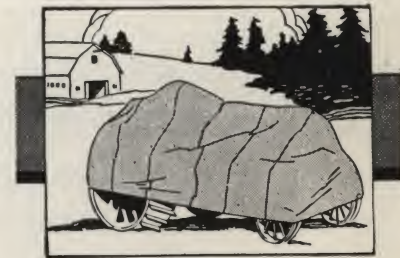
Figs. 2614	Foundry Brushes			
Length, Inches	8	9	10	
★NET DOZEN	\$5.95	\$6.60	\$6.85	

Fig. 2615—10 Inch	Foundry Brush...★NET DOZEN, \$6.90
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Fig. 4050	Hanke Window Squeegees				
Inches	8	12	14	16	
★NET EACH	\$0.35	\$0.40	\$0.50	\$0.55	
★NET DOZEN	\$3.67	\$4.40	\$4.70	\$5.00	

Fig. 4052	Hanke Window Squeegees				
Inches		16	18		
★NET EACH		\$1.10	\$1.25		
★NET DOZEN		\$11.33	\$12.00		

403A	All Osborn Brushes		
1 to 11.....		LIST LESS 40%	
12 or More.....		LIST LESS 40-10%	



403B	Brown Waterproof Tarpaulins.....	★NET EACH
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Size	Fig. 3474	Fig. 3631	Fig. 3475
Feet	9.93	12.41	14.90
	OUNCE	OUNCE	OUNCE
5 by 7	\$1.15	\$1.40	\$1.50
6 by 8	\$1.55	\$1.90	\$1.95
6 by 10	\$1.95	\$2.25	\$2.45
7 by 9	\$2.20	\$2.40	\$2.65
8 by 10	\$2.50	\$3.00	\$3.15
8 by 12	\$2.90	\$3.40	\$3.70
10 by 12	\$3.65	\$4.15	\$4.55
10 by 14	\$4.15	\$4.70	\$5.20
10 by 16	\$4.70	\$5.30	\$6.00
12 by 16	\$5.45	\$6.45	\$7.00
14 by 16	\$6.40	\$7.75	\$8.25
14 by 20	....	\$9.50	\$10.15
16 by 20	....	\$10.65	\$11.55
18 by 20	....	\$11.95	\$13.25
18 by 24	....	\$14.40	\$15.20

White Duck Paulins—Not Treated.....	★NET EACH
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Size	Fig. 3391A	Fig. 3391B	Fig. 3391C
Feet	9.93	12.41	14.90
	OUNCE	OUNCE	OUNCE
5 by 7	\$1.00	\$1.25	\$1.40
6 by 8	\$1.40	\$1.70	\$1.80
6 by 10	\$1.70	\$2.10	\$2.20
7 by 9	\$1.95	\$2.15	\$2.40
8 by 10	\$2.20	\$2.70	\$2.85
8 by 12	\$2.40	\$3.05	\$3.35
10 by 12	\$3.25	\$3.70	\$4.15
10 by 14	\$3.65	\$4.20	\$4.70
10 by 16	\$4.15	\$4.75	\$5.45
12 by 16	\$4.75	\$5.75	\$6.35
14 by 16	\$5.65	\$7.00	\$7.50
14 by 20	\$6.90	\$8.50	\$9.15
16 by 20	\$7.95	\$9.50	\$10.45
18 by 20	\$9.05	\$10.70	\$12.00
18 by 24	\$10.45	\$12.90	\$13.70

Tower's Waterproof Clothing		★NET EACH	
Item	—YELLOW—	—BLACK—	—KHAKI—
Slicker	121T \$3.10	B121T \$3.10	OK121T \$3.10
Medium Coat	B421T \$2.75	B421T \$2.75	.....
Jacket	601T \$1.60	B601T \$1.60	.....
Overalls	801T \$1.60	B801T \$1.60	.....
Tarp Hat	11T \$0.50	B111T \$0.50	.....

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

- 403C Fig. 5051 Fairbanks Portable Beam Scales  
 12066—500 Pounds Capacity.....★NET EACH, \$28.50  
 12064—1000 Pounds Capacity.....★NET EACH, \$33.95  
 Fig. 5052 Fairbanks Heavy Duty Portable Scales  
 1310—1000 Pounds Capacity.....★NET EACH, \$95.00  
 1316—2000 Pounds Capacity.....★NET EACH, \$114.00  
 Fig. 5053 Automatic Parcel Post Scale.★NET EACH, \$119.00  
 Fig. 5056 Fairbanks Union Platform and Scoop Scales  
 508—Single Beam, Tin Scoop.....★NET EACH, \$19.00  
 510—Single Beam, Brass Scoop.....★NET EACH, \$20.90  
 512—Double Beam, Tin Scoop.....★NET EACH, \$20.90  
 514—Double Beam, Brass Scoop.....★NET EACH, \$22.80  
 Fig. 5054 Fairbanks Platform Counter Scale  
 528—200 Pounds Capacity.....★NET EACH, \$22.80  
 1212—300 Pounds Capacity.....★NET EACH, \$30.40  
 Fig. 5055 Fairbanks Unit Counting Scales  
 Counter Type—300 Pounds Capacity  
 Platform Type—1000 Pounds Capacity  
 ★NET EACH, \$65.00  
 ★NET EACH, \$65.00

- 403D Fig. 3669 Sweeping Compound  
 100 Pound Wood Drum.....★NET EACH, \$1.25  
 200 Pound Wood Drum.....★NET EACH, \$2.40  
 300 Pound Wood Drum.....★NET EACH, \$3.40  
 100 Pound Metal Drum.....★NET EACH, \$1.60  
 Fig. 3171 Fairbanks Portable Platform Scales  
 1128—500 Pounds Capacity.....★NET EACH, \$21.75  
 1124—1000 Pounds Capacity.....★NET EACH, \$24.95  
 Fig. 3182 Fairbanks Portable Platform Creamery Scales  
 1278—500 Pounds Capacity.....★NET EACH, \$28.50  
 1280—1000 Pounds Capacity.....★NET EACH, \$33.95  
 Fig. 5057 Fairbanks Package Scales.....★NET EACH, \$25.65  
 Balance of Page.....Prices As Shown

404 Entire Page.....Prices As Shown

405 Figs. 2669 to 2671 Simplex Industrial Jacks..LIST LESS 20%  
 Balance of Page.....Prices As Shown

406 Entire Page.....Prices As Shown

407 Entire Page.....Prices As Shown



408 Round Chain Hoists  
 Fig. 1801 Weston Differential Hoist

Capacity, Tons	★NET COMPLETE Regular Lift	Reg. Lift in Feet	*Extra Lift ★NET FOOT
1/4	\$10.80	6	\$1.40
1/2	\$12.60	7	\$1.40
1	\$16.80	8	\$1.50
1 1/2	\$21.60	8 1/2	\$1.60
2	\$27.00	9	\$1.70
3	\$36.00	10	\$1.80

\*Each foot of extra hoist includes four feet of chain.

Fig. 1800 Round Screw Hoist

Capacity, Tons	★NET COMPLETE Regular Lift	Reg. Lift in Feet	Extra Hoist ★NET FOOT OF LIFT
1/2	\$42.00	8	\$2.10
1	\$50.40	8	\$2.20
1 1/2	\$67.20	8	\$2.30
2	\$84.00	9	\$2.40
3	\$126.00	10	\$2.50
4	\$159.60	10	\$2.70
5	\$235.20	12	\$3.50
6	\$302.40	12	\$4.00
8	\$352.80	12	\$5.20
10	\$462.00	12	\$5.20

Page  
408  
Con.

Fig. 1927 Superior Spur-Gear Hoist

Capacity, Tons	★NET COMPLETE Regular Lift	Reg. Lift in Feet	Extra Lift ★NET FOOT
1/2	\$49.00	8	\$1.25
1	\$63.00	8	\$1.35
1 1/2	\$84.00	8	\$1.40
2	\$98.00	9	\$1.45
3 (SLC)	\$126.00	10	\$2.10
3	\$126.00	10	\$2.10
4	\$154.00	10	\$2.25
5	\$196.00	12	\$3.00
6	\$231.00	12	\$3.00
8	\$280.00	12	\$3.75
10	\$336.00	12	\$4.55

- 409 Fig. 5065 Round Auto-Bloc Hoists.....LIST LESS 24%  
 Fig. 4367 Little Wizard Speed Chain Hoist  
 1/4 Ton.....List Each, \$42.00  
 1 Ton.....List Each, \$56.00  
 ABOVE LIST.....LESS 60%  
 Fig. 5066 Round Army Type Trolley Hoist..LIST LESS 24%

- 409A Figs. 5164 and 5165 Round Self-Aligning Steel Plate Trolleys  
 Ball or Roller Bearing.....LIST LESS 55%  
 Timken Roller Bearing.....LIST LESS 40%  
 Fig. 5068 Richards-Wilcox Ball-Bearing I-Beam Trolleys  
 LIST LESS 45%  
 Fig. 5069 Curtis Roller Bearing Easy-Running I-Beam Trolleys  
 LIST LESS 50-10%

409B Entire Page.....Prices As Shown

409C Entire Page.....Prices As Shown

409D Entire Page.....Prices As Shown

- 410 Figs. 1808, 1809 and 1810 Wood Tackle Block—For Manila  
 Rope  
 3 to 7 Inch Shell.....LIST LESS 22%  
 8 to 10 Inch Shell.....LIST LESS 10%  
 Figs. 1811, 1812 and 1813 Heavy Tackle Thick  
 Mortise Blocks  
 10 Inch and Smaller Shell.....LIST LESS 5%  
 12 Inch and Larger Shell.....LIST PLUS 27%  
 Figs. 1815, 1816 and 1817 Steel Tackle Blocks—  
 For Manila Rope  
 7 Inch and Smaller Shell.....LIST LESS 40%  
 8 to 10 Inch Shell.....LIST LESS 22%  
 Fig. 3111 Steel Special Safety Rope Hoist—Without Rope  
 No. 3, 1 Ton.....★NET EACH, \$1.73  
 No. 6, 2 Ton.....★NET EACH, \$2.88  
 No. 2, 3/4 Ton.....★NET EACH, \$1.04  
 No. 5, 1-1/4 Ton.....★NET EACH, \$2.04

- 411 Figs. 5295, 5296 and 5297 Perfect Metal Blocks—  
 For Manila Rope.....LIST LESS 17%  
 Drop Link Snatch Blocks—For Manila Rope  
 Shell, Inches 6 to 10 12 14 16  
 Fig. 3408 Wood Shell 32% 22% 17% 10%  
 Fig. 1818 Steel Shell 32% 25% 22% 10-5%  
 Figs. 1822 to 3407 Wrought Iron Blocks for Wire Rope  
 Sheave, Inches 6 and 8 10 12 14 and 16  
 Common Bushed 25-5% 25% 10% PLUS 7%  
 Bronzed Bushed 36% 32% 17% LIST NET

- 412 Fig. 3402 Team Snatch Block.....LIST PLUS 15%  
 Fig. 1826 Wrought Iron Snatch Blocks For Wire Rope  
 Sheave, Inches 6-8 10-12 14 16 18-20  
 Use List Prices 50% 37% 25% 17% PLUS 15%  
 Figs. 1827 and 1827A Iron Sheaves.....LIST LESS 10-5%  
 Iron Sheaves for Regular Mortise Blocks  
 Sheave Fig. 1828 Fig. 1829  
 1-1/4 to 4-1/4 Inches LIST LESS 5% LIST LESS 32%  
 4-1/4 to 8 Inches LIST PLUS 5% LIST LESS 25%  
 9-1/2 and 11 Inches LIST PLUS 25% LIST LESS 17%  
 Balance of Page.....Prices As Shown

There are about 38,000 items shown in Allen's Red Book—SAVE TIME Use Allen's Red Book. If you do not find what you want—send Allen your order—or we will gladly and promptly furnish prices and information.

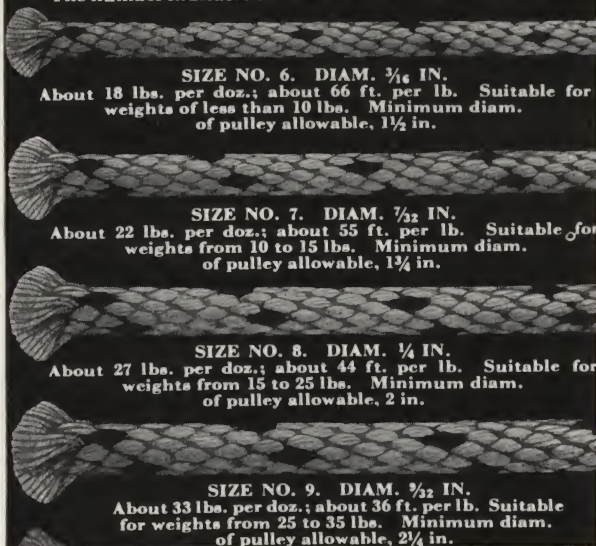
W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

## SAMSON SPOT SASH CORD SIZES AND WEIGHTS

The number indicates the diameter in 32nds of an inch



SIZE NO. 6. DIAM.  $\frac{3}{16}$  IN.

About 18 lbs. per doz.; about 66 ft. per lb. Suitable for weights of less than 10 lbs. Minimum diam. of pulley allowable,  $1\frac{1}{2}$  in.

SIZE NO. 7. DIAM.  $\frac{7}{32}$  IN.

About 22 lbs. per doz.; about 55 ft. per lb. Suitable for weights from 10 to 15 lbs. Minimum diam. of pulley allowable,  $1\frac{3}{4}$  in.

SIZE NO. 8. DIAM.  $\frac{1}{4}$  IN.

About 27 lbs. per doz.; about 44 ft. per lb. Suitable for weights from 15 to 25 lbs. Minimum diam. of pulley allowable, 2 in.

SIZE NO. 9. DIAM.  $\frac{9}{32}$  IN.

About 33 lbs. per doz.; about 36 ft. per lb. Suitable for weights from 25 to 35 lbs. Minimum diam. of pulley allowable,  $2\frac{1}{4}$  in.



Page 413 **SASH CORD.** Made of extra quality uniform fine yarn. Firmly braided, smoothly finished. Carefully inspected. Free from imperfections.

**\*BASE POUND—Add Extras**

Kind	Samson	Phoenix	Aetna
1 to 11 Hanks	\$0.53	\$0.36	\$0.32
1 to 5 Dozen Hanks	\$0.48	\$0.31	\$0.27
6 to 11 Dozen Hanks	\$0.43	\$0.29	\$0.25
1200 Foot Coils	\$0.48	\$0.31	\$0.27

Mason Cord.	First grade.	48 feet to a hank.
Size	Diameter	
No.	Inches	
3-1/2	7/64	\$0.23
4	1/8	\$0.25
4-1/2	9/64	\$0.30

Size 6 Hot Galvanized Jack Chain  
For use on lawn fences. Not shown in Allen's Red Book.

**\*NET 100 FEET. \$4.45**

Balance of Page.....Prices As Shown

414 Entire Page.....Prices As Shown

415 Ocean Brand Manila Rope, 3 Strand  
**DEDUCT \$0.02 Pound For Full Coils of 1200 Feet or Half Coils of 600 Feet From The Following Prices**

$\frac{3}{4}$ Inch and Larger	<b>*NET POUND, \$0.20<math>\frac{1}{2}</math></b>
$\frac{5}{8}$ Inch.....	<b>*NET POUND, \$0.21</b>
$\frac{1}{2}$ , $\frac{1}{2}$ , $\frac{3}{8}$ Inch....	<b>*NET POUND, \$0.21<math>\frac{1}{2}</math></b>
$\frac{3}{8}$ Inch.....	<b>*NET POUND, \$0.23<math>\frac{1}{2}</math></b>
$\frac{1}{4}$ and $\frac{3}{8}$ Inch....	<b>*NET POUND, \$0.24<math>\frac{1}{2}</math></b>
$\frac{3}{16}$ Inch.....	<b>*NET POUND, \$0.25<math>\frac{1}{2}</math></b>

4 Strand Rope, \$0.01 Pound Advance

Marine Brand, 3 Strand Rope

**DEDUCT \$0.02 Pound For Full Coils of 1200 Feet or Half Coils of 600 Feet From The Following Prices**

$\frac{3}{4}$ Inch and Larger	<b>*NET POUND, \$0.18<math>\frac{1}{2}</math></b>
$\frac{5}{8}$ Inch.....	<b>*NET POUND, \$0.19</b>
$\frac{1}{2}$ , $\frac{1}{2}$ , $\frac{3}{8}$ Inch....	<b>*NET POUND, \$0.19<math>\frac{1}{2}</math></b>
$\frac{3}{8}$ Inch.....	<b>*NET POUND, \$0.24</b>
$\frac{1}{4}$ to $\frac{3}{8}$ Inch.....	<b>*NET POUND, \$0.24<math>\frac{1}{2}</math></b>
$\frac{3}{16}$ Inch.....	<b>*NET POUND, \$0.23<math>\frac{1}{2}</math></b>

4 Strand Rope, \$0.01 Pound Advance

**PACKAGED ROPE.** An improved method of Merchandising Rope. You can now sell Rope in packages and save your time for other sales. Should your trade require cut lengths these packages are all connected and arranged so you can cut from the display cabinet without surplus odd ends. The display cabinet holds a total of 2700 feet of rope: 1/2, 3/8, 5/16 and 1/4 inch.

### OCEAN BRAND MANILA ROPE

No. Of Packages	Size, Inches	Length, Feet	*Net Each	*Net Carton
12	1/2	50	\$0.75	\$9.00
8	3/8	75	\$0.69	\$5.52
6	5/16	100	\$0.67	\$4.02
6	1/4	150	\$0.69	\$4.14

4 CARTONS AS LISTED ABOVE OF OCEAN BRAND MANILA PACKAGED ROPE.....**\*NET, \$22.68**  
DISPLAY CABINET ONLY.....**\*NET, \$3.00**

### MARINE BRAND NO. 1 MANILA ROPE

No. Of Packages	Size, Inches	Length, Feet	*Net Each	*Net Carton
12	1/2	50	\$0.68	\$8.16
8	3/8	75	\$0.62	\$4.96
6	5/16	100	\$0.61	\$3.66
6	1/4	150	\$0.63	\$3.78

4 CARTONS AS LISTED ABOVE OF MARINE BRAND MANILA PACKAGED ROPE.....**\*NET, \$20.56**  
DISPLAY CABINET ONLY.....**\*NET, \$3.00**

### CHAMPION BRAND MANILA ROPE

No. Of Packages	Size, Inches	Length, Feet	*Net Each	*Net Carton
12	1/2	50	\$0.62	\$7.44
8	3/8	75	\$0.58	\$4.64
6	5/16	100	\$0.57	\$3.42
6	1/4	150	\$0.58	\$3.48

4 CARTONS AS LISTED ABOVE OF CHAMPION BRAND MANILA PACKAGED ROPE.....**\*NET, \$18.98**  
DISPLAY CABINET ONLY.....**\*NET, \$3.00**

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES



Page  
415 SPECIAL! Not shown in Red Book. Champion  
Con. Brand Manila Rope, 3 Strand

## DEDUCT \$.02 Pound For Full Coils of 1200 Feet or Half Coils of 600 Feet From The Following Prices

$\frac{3}{4}$ Inch and Larger.....	★NET POUND, \$0.17
$\frac{5}{8}$ Inch.....	★NET POUND, \$0.17½
$\frac{1}{2}$ , $\frac{3}{4}$ Inch.....	★NET POUND, \$0.18
$\frac{3}{8}$ Inch.....	★NET POUND, \$0.20
$\frac{1}{4}$ and $\frac{3}{8}$ Inch.....	★NET POUND, \$0.21
$\frac{3}{16}$ Inch.....	★NET POUND, \$0.22

Fig. 1851 Manila Transmission Rope  
Full Coils of 1200 Feet, or Half Coils of 600  
Feet.....★NET POUND, \$0.21½  
Cut Lengths.....★NET POUND, \$0.22½

Fig. 1852 Hawser Laid Manila Rope  
Full or Half Coils.....★NET POUND, \$0.23½  
Cut Lengths.....★NET POUND, \$0.24½

Fig. 3409 Plumbers' Oakum  
Spun. 50 Pound Bale.....★NET BALE, \$3.75  
Spun. 20-5 Pound Cartons.....★NET BALE, \$8.75  
Spun. 1 to 9-5 Pound Cartons.....★NET CARTON, \$0.52  
Rope. 50 Pound Bale.....★NET BALE, \$4.75

Binder Twine.....Write For Prices

Fig. 1853 Sisal Rope

## DEDUCT \$.02 Pound For Full Coils of 1200 Feet or Half Coils of 600 Feet From The Following Prices

$\frac{3}{4}$ Inch and Larger.....	★NET POUND, \$0.13½
$\frac{5}{8}$ and $\frac{1}{2}$ Inch.....	★NET POUND, \$0.14
$\frac{1}{4}$ and $\frac{1}{2}$ Inch.....	★NET POUND, \$0.14½
$\frac{3}{8}$ Inch.....	★NET POUND, \$0.15½
$\frac{1}{4}$ to $\frac{3}{8}$ Inch.....	★NET POUND, \$0.16½
$\frac{3}{16}$ Inch.....	★NET POUND, \$0.17½

416 Fig. 1830 Cast Steel Hoisting Rope.....LIST LESS 15-10-5%

Fig. 1831 Plow Steel Hoisting Rope.....LIST LESS 30-10-5%

Fig. 1832 Cast Steel Haulage and Transmission Rope.....LIST LESS 15-10-5%

Fig. 5302 Special Flexible Hoisting Rope.....LIST LESS 30-10-5%

Fig. 2685 Stump Pulling Wire Rope.....LIST LESS 15-10-5%

417 Fig. 1834 Iron Hoisting Rope.....LIST LESS 10-5%

Fig. 4232 Extra Flexible Hay Carrier Rope.....LIST LESS 14%

Fig. 1836 Tiller Rope.....LIST LESS 14%

Bright.....LIST LESS 14%

Galvanized—Add 25% to List.....LIST LESS 14%

Fig. 1845 Sash Cords.....LIST LESS 25-10-5%

Bright.....LIST LESS 20-10-5%

Galvanized.....LIST LESS 20-10-5%

Fig. 1837 Galvanized Steel Strand.....LIST LESS 40-10-5%

Single Galvanized.....LIST LESS 30-10-5%

Double Galvanized.....LIST LESS 30-10-5%

Fig. 1835 Galvanized Iron Ship Rigging and Guy Ropes.....LIST NET

418 Coil Chains.....Prices As Shown

418A Entire Page.....Prices As Shown

418B All Armstrong Paint.....Prices As Shown

419 Fig. 3841 Roof and Iron Paint.....★NET GALLON, \$0.65

5 Gallon Can.....★NET GALLON, \$0.65

1 Gallon Can.....★NET GALLON, \$0.70

Fig. 3842 Black Heat Proof Varnish.....★NET GALLON, \$0.55

5 Gallon Can.....★NET GALLON, \$0.55

1 Gallon Can.....★NET GALLON, \$0.60

Fig. 3843 Roof and Iron Paint.....★NET GALLON, \$0.65

5 Gallon Can.....★NET GALLON, \$0.65

1 Gallon Can.....★NET GALLON, \$0.70

Fig. 3844 Black Anti-Corrosion Coating.....★NET GALLON, \$0.75

5 Gallon Can.....★NET GALLON, \$0.75

1 Gallon Can.....★NET GALLON, \$0.80

Balance of Page.....Prices As Shown



Page

419A Fig. 3845 General Utility Paint

5 Gallon Can.....★NET GALLON, \$1.30

1 Gallon Can.....★NET GALLON, \$1.35

Fig. 3847 Machinery Enamel

5 Gallon Can.....★NET GALLON, \$2.18

1 Gallon Can.....★NET GALLON, \$2.25

1 Quart Can.....★NET CAN, \$0.75

Fig. 3850 Mill White Flat

5 Gallon Can.....★NET GALLON, \$2.05

1 Gallon Can.....★NET GALLON, \$2.10

Fig. 4056 Utility Spar Varnish

5 Gallon Can.....★NET GALLON, \$2.10

1 Gallon Can.....★NET GALLON, \$2.15

1/2 Gallon Can.....★NET CAN, \$1.20

1 Quart Can.....★NET CAN, \$0.70

Fig. 3851 Concrete Floor Paint

5 Gallon Can.....★NET GALLON, \$2.10

1 Gallon Can.....★NET GALLON, \$2.20

Fig. 4054 Pawnee Heavy Body Barn Paint

Red or Brown.....★NET GALLON, \$1.50

1 Gallon Can.....★NET GALLON, \$1.60

Green or Gray.....★NET GALLON, \$1.65

5 Gallon Can.....★NET GALLON, \$1.75

1 Gallon Can.....★NET GALLON, \$1.75

Fig. 4055 Armstrong Ready Mixed Barn Paint

Red or Brown.....★NET GALLON, \$1.70

5 Gallon Can.....★NET GALLON, \$1.80

1 Gallon Can.....★NET GALLON, \$1.90

Yellow or Gray.....★NET GALLON, \$1.90

5 Gallon Can.....★NET GALLON, \$2.00

1 Gallon Can.....★NET GALLON, \$2.00

Balance of Page.....Prices As Shown

419B All Paints.....Prices As Shown

Figs. 5237-5238 Putty Knives.....LIST LESS 33¼%

Figs. 5239-5240 Painters' Scrapers.....LIST LESS 33¼%

420 Entire Page.....Prices As Shown

421 Fig. 2537 Steel Wool.....Prices As Shown



Fig. 5089 Flaxoap

1 Pound Can.....★NET POUND, \$0.18-1/2

2 Pound Can.....★NET POUND, \$0.16

5 Pound Can.....★NET POUND, \$0.15

25 Pound Drum.....★NET POUND, \$0.12

50 Pound Drum.....★NET POUND, \$0.11-1/2

300 Pound Drum.....★NET POUND, \$0.10-1/2

1 to 288 Pounds.....NET

288 to 576 Pounds.....6% OFF

576 to 1008 Pounds.....8% OFF

1008 Pounds and Over.....10% OFF

Fig. 5090 Sponges

Broken Carton Lot.....25% OFF

Full Carton Lot.....40% OFF

Fig. 5169 Dic-A-Doo Paint Brush Bath

★NET DOZEN, \$0.40

# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES



Page  
421A  
Con.

Fig. 4122 Forge Varnish Brush

1	Inch.....	★NET DOZEN, \$2.27
1½	Inch.....	★NET DOZEN, \$3.55
2	Inch.....	★NET DOZEN, \$5.81
2½	Inch.....	★NET DOZEN, \$8.49

Fig. 4124 Fox Sash Brush

1½	Inch.....	★NET DOZEN, \$4.44
2	Inch.....	★NET DOZEN, \$7.04



Fig. 4123 Extra Shasta Varnish Brush

1½	Inch.....	★NET DOZEN, \$5.71
2½	Inch.....	★NET DOZEN, \$8.09
2½	Inch.....	★NET DOZEN, \$11.11
3½	Inch.....	★NET DOZEN, \$15.56

Fig. 5077 Fa-ot Wall Brushes

3	Inch.....	★NET DOZEN, \$5.71
3½	Inch.....	★NET DOZEN, \$7.72
4	Inch.....	★NET DOZEN, \$9.75

Fig. 5078 Onliwon Wall Brushes

3	Inch.....	★NET DOZEN, \$4.00
3½	Inch.....	★NET DOZEN, \$6.32
4	Inch.....	★NET DOZEN, \$7.92

Fig. 4125 Fad Wall Brush

3	Inch.....	★NET DOZEN, \$10.52
3½	Inch.....	★NET DOZEN, \$14.80
4	Inch.....	★NET DOZEN, \$19.61

Fig. 4126 Joe Wall Brush

3½	Inch.....	★NET DOZEN, \$23.57
4	Inch.....	★NET DOZEN, \$30.77

Fig. 4127 Friendly Painter Wall Brush

3½	Inch.....	★NET DOZEN, \$29.76
4	Inch.....	★NET DOZEN, \$39.55

Fig. 4128 M. P. Falcon Stucco Wall Brush

4	Inch.....	★NET DOZEN, \$61.55
4½	Inch.....	★NET DOZEN, \$69.06

Fig. 4129 France Kalsomine Brush

7	Inch.....	★NET DOZEN, \$79.23
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Balance of Page.....Prices As Shown

421B Entire Page.....Prices Quoted On Request

421C

★NET  
ROLL

Fig. 2688 Slate Surface Roofing.....\$2.05

Fig. 2687 "Windsor" Smooth Roofing

Light.....	\$0.90
Light Medium.....	\$1.06
Medium.....	\$1.20

Fig. 3649 Defiance Rubbertex Corrugated Roofing

Light.....	\$1.20
Light Medium.....	\$1.54
Medium.....	\$1.88

Fig. 2689 "Defiance" Smooth Surface Roofing

Medium.....	\$2.24
Heavy.....	\$2.59
Extra Heavy.....	\$2.87

Fig. 1859 Tarred Felt

No.	To Roll	
12	52 Pounds	\$1.75
14	60 Pounds	\$1.96
15	65 Pounds	\$2.10
30	32 Pounds	\$1.12

Roofing Nails.....★NET POUND, \$0.10

Roofing Caps.....★NET POUND, \$0.10

Fig. 3411 Roofing Pitch.....★NET 100 POUNDS, \$1.40

Fig. 3412 Refined Coal Tar.....★NET BARREL, \$10.70

421D

★NET  
SQUARE

Flex-A-Tile Strip Shingles

Fig. 2839 10-Inch Strip.....	\$5.88
Fig. 3583 12-1/2 Inch Strip.....	\$7.33

Flex-A-Tile Hexagon Strip Shingles

Fig. 3584 Special.....	\$4.97
Fig. 3585 Double Coverage.....	\$6.11

Flex-A-Tile Individual Shingles

Fig. 2836 Standard.....	\$6.94
Fig. 2838 Super Giant.....	\$8.48

Page  
421  
Con.

**SPECIAL HOUSEHOLD CHAMOIS.** Second selection. Double dressed. An exceptional value for household and other light work. Made by the so-called French Process. Genuine oil tan. Easy to use. They last long. Approximately 14 by 19 inches.

1 to 11.....	★NET EACH, \$0.46
12 or More.....	★NET DOZEN, \$5.00

Fig. 5091 Dru-Tan Chamois

D50	13 x 16 Inches.....	LIST DOZEN, \$9.00
D75	14 x 18 Inches.....	LIST DOZEN, \$12.00
D100	16 x 21 Inches.....	LIST DOZEN, \$15.00
D125	18 x 24 Inches.....	LIST DOZEN, \$18.00
D150	20 x 26 Inches.....	LIST DOZEN, \$24.00

Fig. 5092 Sewed Chamois—Lists As Shown

Fig. 5093 Heavy Weight Chamois

100	14 x 23 Inches.....	LIST DOZEN, \$21.00
101	16 x 26 Inches.....	LIST DOZEN, \$24.00
102	18 x 30 Inches.....	LIST DOZEN, \$30.00
103	20 x 32 Inches.....	LIST DOZEN, \$36.00
104	22 x 34 Inches.....	LIST DOZEN, \$42.00

Fig. 5094 Heavy Weight Double Duty Chamois

F0	19 x 11 Inches.....	LIST DOZEN, \$10.68
F2	23 x 13 Inches.....	LIST DOZEN, \$14.88
F4	26 x 15 Inches.....	LIST DOZEN, \$21.32
F5	28 x 16 Inches.....	LIST DOZEN, \$25.78
F6	30 x 18 Inches.....	LIST DOZEN, \$30.00
F7	31 x 19 Inches.....	LIST DOZEN, \$33.00
F9	33 x 21 Inches.....	LIST DOZEN, \$38.44
F10	35 x 22 Inches.....	LIST DOZEN, \$41.44

**DISCOUNT ALL CHAMOIS SKINS—Figs 5091 to 5094**

1 to 11.....	LIST LESS 25%
12 or More.....	LIST LESS 40%



Fig. 5431 DuPont Cellulose Sponge. Not in Allen's Red Book.

Size No.	Approximate Size, Inches	No. In Carton	In Case	LIST EACH
4	3-1/8 x 4-5/8 x 1-1/4	12	72	\$0.25
6	3-1/2 x 5-1/4 x 1-5/8	12	72	\$0.45
8	3-7/8 x 6-1/4 x 2	12	48	\$0.75
10	4-5/8 x 6-1/2 x 2-1/2	6	24	\$1.10

1 to 11.....ABOVE LIST LESS 33-1/3%  
Dozen Lots.....ABOVE LIST LESS 40%  
5 Case Lots.....ABOVE LIST LESS 40-10%

Balance of Page.....Prices As Shown

421A Wooster Foss-Set Paint and Varnish Brushes

Fig. 5074 Duz Varnish Brush

1	Inch.....	★NET DOZEN, \$0.89
1½	Inch.....	★NET DOZEN, \$1.33
2	Inch.....	★NET DOZEN, \$1.77

Fig. 5075 Toppo Varnish Brush

1	Inch.....	★NET DOZEN, \$0.80
1½	Inch.....	★NET DOZEN, \$1.20
2	Inch.....	★NET DOZEN, \$2.00

Fig. 5076 Folly Varnish Brush

1	Inch.....	★NET DOZEN, \$1.65
1½	Inch.....	★NET DOZEN, \$2.08
2	Inch.....	★NET DOZEN, \$3.73
2½	Inch.....	★NET DOZEN, \$5.69

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

Page  
421D Fig. 4462 Rutland No-Tar-In Roof Coating  
Con. Black.....★NET GALLON, \$0.52  
Red.....★NET GALLON, \$1.10  
Rutland Roofing Cement (Not Shown in Red Book)  
1 Pound Can (24 in Case).....★NET POUND, \$0.10  
2-1/2 Pound Can (18 in Case).....★NET POUND, \$0.09  
5 Pound Can (12 in Case).....★NET POUND, \$0.08  
10 Pound Can (4 in Case).....★NET POUND, \$0.07 1/2  
Fig. 4120 Hard Vulcanized Fibre.....Prices On Application

422 Figs. 3267 3954 and 3945.....Prices As Shown

422-423 Galvanized Pipe, Elbows, Gutters, Shors, Troughs, Etc.  
Prices On Request

424 Fig. 3634 Overhead Vehicle Washer.....★NET EACH, \$8.50  
Revised Prices on Request or send your order for Brake Lining.  
Balance of Page.....Prices As Shown

425 Fig. 1792 Galvanized Steel Wire Cloth, Extras See Below  
24, 30, 36, 42 and 48 Inch Widths  
2x2, 19 Gauge.....★NET 100 Square Feet, \$3.33  
2 1/2x2 1/2, 20 Gauge.....★NET 100 Square Feet, \$3.54  
3x3, 21 Gauge.....★NET 100 Square Feet, \$3.58  
4x4, 23 Gauge.....★NET 100 Square Feet, \$3.83  
5x5, 24 Gauge.....★NET 100 Square Feet, \$3.92  
6x6, 25 Gauge.....★NET 100 Square Feet, \$4.12  
7x7, 26 Gauge.....★NET 100 Square Feet, \$4.67  
8x8, 27 Gauge.....★NET 100 Square Feet, \$4.75

## EXTRAS

12 Inch Width.....★Net Extra, 100 Square Feet, \$1.00  
18 Inch Width.....★Net Extra, 100 Square Feet, \$0.75  
54, 60, 66 or 72 Inch Widths  
★Net Extra, 100 Square Feet, \$0.75  
50 Foot Rolls.....★Net Extra, 100 Square Feet, \$0.15  
25 Foot Rolls.....★Net Extra, 100 Square Feet, \$0.30  
Less than 25 Feet.....★Net Extra, 100 Square Feet, \$0.50

Fig. 3069 Window Screen Cloth, Extras, See Red Book

## ★NET 100 SQUARE FEET IN 100 FOOT ROLLS

18 to 48 Inch Widths, See Red Book for Sizes.  
12 Mesh Black Screen Cloth.....\$1.75  
14 Mesh Galvanized Screen Cloth.....\$2.15  
14 Mesh Bronze Screen Cloth.....\$5.25  
16 Mesh Bronze Screen Cloth.....\$5.75

Fig. 1799 Poultry Netting

## LIST BALE OF 150 LINEAL FEET

Width Inches	Square Feet In Bale	—Galvanized— After Weaving		—Galvanized— Before Weaving	
		1 Inch Mesh	2 Inch Mesh	1 Inch Mesh	2 Inch Mesh
12	150	\$2.56	\$1.54	\$2.31	\$1.46
18	225	\$3.68	\$2.09	\$3.30	\$2.00
24	300	\$4.82	\$2.70	\$4.16	\$2.53
30	375	\$5.98	\$3.21	\$5.07	\$2.98
36	450	\$7.00	\$3.87	\$6.02	\$3.60
42	525	\$8.01	\$4.34	\$6.90	\$4.05
48	600	\$9.06	\$4.93	\$7.80	\$4.50
60	750	\$11.24	\$6.04	\$9.60	\$5.57
72	900	\$13.58	\$7.17	\$11.62	\$6.58

DISCOUNT.....ABOVE LISTS LESS 36%  
Balance of Page.....Prices As Shown

428 Fig. 5129 Dixon's Microfyne Flake Graphite.....LIST LESS 36%

Figs. 5127 and 5128 Form-A-Gasket  
Less Than Carton.....25% OFF  
Carton Lots.....40% OFF  
Balance of Page.....Prices As Shown

429 Fig. 5126 Garage Leather Washers.....DEDUCT 25%  
Fig. 5132 Visible Pump Hose Nozzle.....★NET EACH, \$4.05  
Fig. 5134 Battery Filler.....★NET EACH, \$1.43  
Fig. 5131 All Steel Creeper.....★NET EACH, \$3.40  
Fig. 4443 Steel Door Mats

## ★NET EACH

No.	Size, Inches	1 to 5	6 to 11	12 or More
1	16 by 24	\$1.44	\$1.20	\$1.12
2	18 by 30	\$2.02	\$1.68	\$1.59
3	32 by 36	\$2.83	\$2.36	\$2.22
4	24 by 42	\$3.46	\$2.88	\$2.70
5	30 by 48	\$5.04	\$4.20	\$3.94
6	36 by 48	\$5.90	\$4.92	\$4.61
7	36 by 54	\$6.62	\$5.52	\$5.18
8	36 by 60	\$7.58	\$6.32	\$5.93
9	36 by 72	\$9.02	\$7.52	\$7.05

Balance of Page.....Prices As Shown

There are approximately 3800 Items (38000 Sizes and Styles) Listed in Allen's Red Book. SAVE TIME and MONEY, ALWAYS USE ALLEN'S RED BOOK. If you do not find the items you want, order it or write us.

Page  
429A Figs. 3091 to 4670 Brass Shut-Off Cocks.....LIST LESS 50-10%  
Solderless Compression Couplings.....LIST LESS 50-10%  
Balance of Page.....Prices As Shown



**SPECIAL!** Handy S.A.E. Tube Coupling Assortment. 120 of the most popular sizes in a Strong, neat steel display box, 15-1/4 x 7-3/4 x 1-1/2 Inches. Not shown in Allen's Red Book.

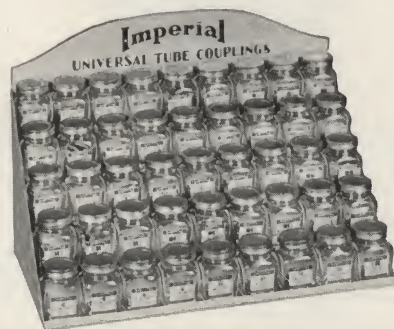
Quantity	Article
36	41-Fx 1/4" Nuts
36	41-Fx 1/2" Nuts
3	42-Fx 1/4" Unions
3	42-Fx 1/2" Unions
3	44-Fx 1/4" Tees
3	44-Fx 1/2" Tees
3	54-Fx 1/4" Tees
3	45-Fx 1/2" Tees
3	46-Fx 1/4" Female Couplings
3	46-Fx 1/2" Female Couplings
6	48-Fx 1/4" Half Union Couplings
6	48-Fx 1/2" Half Union Couplings
6	49-Fx 1/4" Elbows
6	49-Fx 1/2" Elbows

LIST ASSORTMENT, \$21.00.....★NET EACH, \$9.35

**SPECIAL!** Handy Compression Coupling Assortment. 102 of the most popular sizes in a strong, neat steel box, 15-1/4 x 7-3/4 x 1-1/2 inches. Not shown in Allen's Red Book.

Quantity	Article	Quantity	Article
12	60-Fx 1/4" Sleeves	3	68-F 1/4" x 1/4" Connectors
12	60-Fx 1/2" Sleeves	8	69-Fx 1/4" Elbows
6	61-Fx 1/4" Nuts	8	69-Fx 1/2" Elbows
6	61-Fx 1/2" Nuts	3	69-F 1/4" x 1/4" Elbows
3	62-Fx 1/4" Unions	3	70-Fx 1/4" Elbows
3	62-Fx 1/2" Unions	3	70-Fx 1/2" Elbows
3	66-Fx 1/4" Bushings	2	71-Fx 1/4" Tees
3	66-Fx 1/2" Bushings	3	72-Fx 1/4" Tees
8	68-Fx 1/4" Connectors	3	72-Fx 1/2" Tees
8	68-Fx 1/2" Connectors	3	72-Fx 3/4" Tees

LIST ASSORTMENT, \$19.70.....★NET EACH, \$8.65



**SPECIAL!** Glass Jar Fitting Assortment. It contains the 34 most needed types and sizes (209 parts) of Compression, S.A.E. Flare and Inverted Flare Fittings, Pipe Plugs, Bushings, Nipple and Shut-off Cocks. The parts are contained in clear glass jars having orange and black labels and dust tight caps. The jars are arranged in a sturdy steel stand 22 inches wide, 15-1/2 inches high and 12 inches deep, finished in orange and black. There are 45 jars, all labeled, 34 contain the stock and 11 are unfilled to allow for expansion of stock. The label shows the catalog number, size and the list price of the part contained. There is no charge for the stand or jars.

LIST ASSORTMENT, \$29.76.....★NET, \$13.50

# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

Page  
429B Master Padlocks.....LIST LESS 33¼%



**SPECIAL! Master Outstanding Value 25c Retail Padlock Display.** With lock-fast metal easel. This beautiful display is free with 6 Strong boy No. 22 Padlocks and 6 Greyhound No. 99 Padlocks, each retailing at 25c each. Not shown in Allen's Red Book.

**MFRS. 200 PADLOCK DISPLAY**

★NET, \$2.00



407 Display

**SPECIAL! Master Padlock (12) Sales Display.** An attractive sales display, 11-3/4 x 23 inches, if free with a purchase of one each of the 12 leading padlocks: Nos. 44, 55, 99, 77, 7, 3, 1, 5, 105, 22, 500 and 1400, retailing from 10c to \$1.25 each. Not shown in Allen's Red Book.

**MFRS. 407 PADLOCK DISPLAY**

★NET, \$4.07

Have you looked through this Discount Sheet for the SPECIALS? There are approximately 3800 Items (38000 Sizes and Styles) Listed in Allen's Red Book. SAVE TIME and MONEY, ALWAYS USE ALLEN'S RED BOOK. If you do not find the items you want, send us your order—or write to us for prices and information.



**SPECIAL. Chicago Double Bitted Padlocks.** Not Shown in Allen's Red Book. Double action locking principle. It positively grips both sides of the shackle. Self-locking revolving cam which also throws the bolt in the other side of the shackle, using a patented double locking plug. Two nickel finish double bitted keys with each lock. White metal case finished in dull nickel. Hardened Steel Shackle. 1 in a box. 12 to a carton.

Mfrs. No.	Case Size Inches	Diameter of Shackle	LIST DOZEN
740	1-1/8 x 1-1/8	3/16	\$6.00
741	1-9/16 x 1-1/2	1/4	\$7.20
742	1-15/16 x 1-5/8	5/16	\$9.00

**DISCOUNT, 1 to 11.....LIST LESS 25%**  
**DISCOUNT, 12 or More.....LIST LESS 33¼%**



Page

430 Fig. 6010 Armored Cable

1 to 249 Feet.....★NET 100 FEET, \$3.20  
250 to 999 Feet.....★NET 100 FEET, \$2.90  
1000 Feet or More.....★NET 100 FEET, \$2.60

Rigid Conduit Pipe

Fig.	Kind	1/2 Inch	3/4 Inch	1 Inch
6012B	Black Enamel	\$6.63	\$8.53	\$12.29
6012G	Galvanized	\$7.10	\$9.14	\$13.23
6012LG	Light Galv.	\$5.53	\$7.05	\$10.13

Fig. 6100 Non-Metallic Conduit.....Prices As Shown  
Conduit Elbows

Fig.	Kind	1/2 Inch	3/4 Inch	1 Inch
6013B	Black	\$14.22	\$18.72	\$28.49
6013G	Galvanized	\$16.08	\$21.14	\$32.08

Conduit Couplings

Fig.	Kind	1/2 Inch	3/4 Inch	1 Inch
6014B	Black	\$5.78	\$8.36	\$10.97
6014G	Galvanized	\$6.35	\$9.14	\$12.01

Fig. 5154 Springs.....★NET ASSORTMENT, \$0.40

Fig. 5155 Springs.....★NET ASSORTMENT, \$0.80

Fig. 5156 Springs.....★NET ASSORTMENT, \$1.25

Fig. 5157 Cadmium Plated Springs.....DEDUCT 25%

Fig. 5158 Springs

Assortment.....★NET, \$4.50

9 of a Size, or More.....★NET EACH, \$0.04

1 to 8 of a Size.....★NET EACH, \$0.08

Fig. 5160 Gate Springs.....★NET DOZEN, \$1.25

Fig. 5159 Springs

Assortment.....★NET, \$9.00

1 Size in Box Lots.....LIST LESS 60%

Less Than Box Lot.....LIST LESS 20%

**SPECIAL! Black Finish Screen Door and Gate Springs.** Not shown in Allen's Red Book.

Size No.	Diam. In.	Length In.	Wire No.	Lbs. Gross	★NET DOZ.	★NET GROSS
1	17/64	16-5/8	19	15	\$0.36	\$2.67
2	5/16	16-5/8	19	21	\$0.42	\$3.00
3	23/64	16-5/8	18	28	\$0.45	\$3.35
4	3/8	16-5/8	17	33	\$0.50	\$3.65
5	13/32	16-5/8	16	39	\$0.60	\$4.35
6	1/2	16-5/8	16	48	\$0.70	\$5.30

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# CONFIDENTIAL DEALERS PRICES

Page

- 431 Fig. 6111 Super Flexible Welding Cable LIST 100 FEET
- | Size             | 4                    | 2       | 1       | 1/0     | 2/0     | 3/0     | 4/0     |
|------------------|----------------------|---------|---------|---------|---------|---------|---------|
| List             | \$28.00              | \$37.00 | \$43.50 | \$51.50 | \$62.00 | \$75.00 | \$91.50 |
| 1 to 249 Feet    | ABOVE LISTS LESS 15% |         |         |         |         |         |         |
| 250 Feet or More | ABOVE LISTS LESS 35% |         |         |         |         |         |         |
| Balance of Page  | Prices As Shown      |         |         |         |         |         |         |

- 432 Fig. 6016 UNION Renewable Enclosed Fuses.... As Shown  
Fig. 6016 ECONOMY Renewable Enclosed Fuses
- | Up to \$9.99 List       | LIST LESS 24% |
|-------------------------|---------------|
| \$10.00 to \$49.99 List | LIST LESS 31% |
| \$50.00 List or More    | LIST LESS 38% |
- Fig. 6017-6018 GEM Non-Indicating Fuses
- | Amperes                 | 15 to 60      | 100-400 |
|-------------------------|---------------|---------|
| Up to \$9.99 List       | LIST LESS 69% | 54%     |
| \$10.00 to \$49.99 List | LIST LESS 72% | 59%     |
| \$50.00 List or More    | LIST LESS 74% | 63%     |
- Fig. 6017-6018 ECONOMY Non-Indicating Fuses.
- | Amperes                 | 15 to 60      | 100-400 |
|-------------------------|---------------|---------|
| Up to \$9.99 List       | LIST LESS 69% | 54%     |
| \$10.00 to \$49.99 List | LIST LESS 72% | 59%     |
| \$50.00 List or More    | LIST LESS 74% | 63%     |



Balance of Page.....Prices As Shown

- 433 Entire Page.....Prices As Shown



SPECIAL! Spring Action Safety Attachment Plugs with handle grip. Not shown in Allen's RED BOOK.  
Cap Only. Long Handle.....★NET 100, \$4.00  
Cap Only. For Senior Cord.....★NET 100, \$10.00



SPECIAL! Cube Triple Tap With Spring Action Blades.  
It actually holds an Outlet.....★NET 100, \$7.00

- 434 Entire Page.....Prices As Shown

- 435 Entire Page.....Prices As Shown

- 436 Entire Page.....Prices As Shown

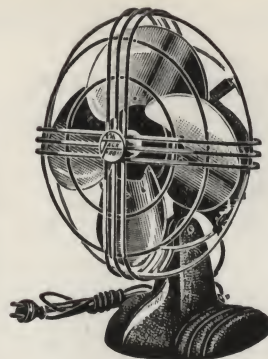
- 437 Entire Page.....Prices As Shown

- 438 Fig. 6137 Air Cooled Transformers
- |                   |                    |
|-------------------|--------------------|
| 50 Volt-Amperes   | ★NET EACH, \$6.45  |
| 100 Volt-Amperes  | ★NET EACH, \$7.30  |
| 250 Volt-Amperes  | ★NET EACH, \$9.90  |
| 500 Volt-Amperes  | ★NET EACH, \$13.75 |
| 750 Volt-Amperes  | ★NET EACH, \$17.20 |
| 1000 Volt-Amperes | ★NET EACH, \$21.95 |
| Balance of Page   | Prices As Shown    |

- 439 Figs. 4675 to 4677 Flexco-Lok and Flexco Lamp Guards.....LIST LESS 67%
- Fig. 6143 Vaprotext Lamp Guard
- |                            |                    |
|----------------------------|--------------------|
| Without Cord—60 Watt       | ★NET EACH, \$7.20  |
| Without Cord—100 Watt      | ★NET EACH, \$8.00  |
| With 25 Foot Cord—60 Watt  | ★NET EACH, \$8.60  |
| With 25 Foot Cord—100 Watt | ★NET EACH, \$10.30 |
| Balance of Page            | Prices As Shown    |

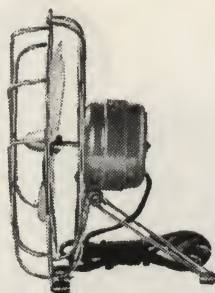
- 440 Westinghouse Mazda or Jewel Lamps. Write For Information and Prices, Specifying Your Yearly Requirements.

- 441 Entire Page.....DEDUCT 10%



Page

- 442 Electric Fans ★NET EACH
- |   |         |
|---|---------|
| Fig. 6219. 12 Inch Oscillating          | \$14.00 |
| Fig. 6220. 12 Inch Oscillating, 2 Speed | \$11.50 |
| Fig. 6220. 10 Inch Oscillating, 2 Speed | \$10.25 |
| Fig. 6220. 10 Inch Oscillating, 1 Speed | \$6.25  |
| Fig. 6221. 16 Inch Straight, 2 Speed    | \$18.75 |
| Fig. 6221. 12 Inch Oscillating, 1 Speed | \$15.60 |
| Fig. 6221. 10 Inch Oscillating, 1 Speed | \$8.10  |
| Fig. 6222. 8 Inch Straight, 1 Speed     | \$1.85  |
| Fig. 6222. 8 Inch Oscillator, 1 Speed   | \$3.55  |
| Fig. 6222. 10 Inch Oscillator, 1 Speed  | \$4.90  |
| Fig. 6223. 8 Inch Straight, 1 Speed     | \$1.40  |
| Fig. 6223. 8 Inch Oscillator, 1 Speed   | \$2.80  |
| Fig. 6223. 10 Inch Oscillator, 1 Speed  | \$3.90  |
- Ceiling Fans
- |   |         |
|---|---------|
| Fig. 6224 Plain, No Holder                              | \$30.85 |
| Fig. 6224 With Glassware Holder, No Glass and No Switch | \$30.85 |

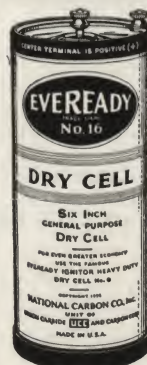


SPECIAL! Electric Fan. Not shown in Allen's Red Book. An exceptionally low priced Electric Fan that has proven to be a big seller.

★NET EACH, \$1.00

- 443 Century Electric Motors—Standard Lists.....DEDUCT 12%

- 444 Fig. 1980D Eveready Columbia Ignitor Dry Cells
- |            |                    |
|------------|--------------------|
| 1 to 24    | ★NET EACH, \$0.29  |
| 25 or More | ★NET EACH, \$0.265 |



- Fig. 6196 Mfrs. 16 Eveready Dry Cell
- |               |                    |
|---------------|--------------------|
| 1 to 24       | ★NET EACH, \$0.209 |
| 25 in Package | ★NET EACH, \$0.19  |

## W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# CONFIDENTIAL DEALERS PRICES

Page 444 Fig. 5292 Burgess Electric Lantern..... ★NET EACH, \$1.53  
 Con. Fig. 5293 Twin-Six Lantern Battery..... ★NET EACH, \$0.51  
 15 in Package..... ★NET EACH, \$0.56  
 1 to 14..... Prices As Shown  
 Balance of Page..... Prices As Shown

445 Eveready Flashlights..... Prices As Shown  
 Fig. 6176 Eveready 400 Foot Focusing Flashlight.  
 Mfrs. 2671. List \$0.78..... ★NET EACH, \$0.51  
 Mfrs. 71. Display Card of 6..... ★NET EACH, \$3.06  
 Eveready Automatic Spotlights.  
 Fig. 5685. List \$1.15..... ★NET EACH, \$0.77  
 Fig. 5686. List \$1.35..... ★NET EACH, \$0.90



**SPECIAL. EVEREADY AUTOMATIC SPOTLIGHT.** It  
 Retailers For Only \$1.00 Complete with 2 Eveready Mfrs.  
 950 Flashlight Batteries. Silver plated reflector. Chromium  
 lens ring and trim. Die-cast reflector shell. Streamlined  
 Switch. Seamless brass tube. Wear resistant rolled black  
 finish. Radically different self-focusing with a special accu-  
 rately shaped reflector that is die cast of heavy metal. The  
 filament in the prefocused lamp is micrometrically centered  
 and securely held in position by a firm support. The lamp  
 filament is automatically located in the proper focal position  
 in the reflector. Mfrs. 25 Counter Display Package.  
 6 No. 2251 Spotlights. Without batteries.  
 List, \$4.80..... ★NET PACKAGE, \$3.36  
 Mfrs. 2251 Spotlight. 1 in a package. Without Batteries.  
 List, \$0.80..... ★NET EACH, \$0.56

446 Fig. 3057S Make and Break  
 Coils (Not as illustrated)... ★NET EACH, \$1.85  
 Fig. 51J Gas Engine Coil, Box  
 Type. (Not as illustrated). ★NET EACH, \$2.65  
 Figs. 4679-4680 Friction Tape..... Use 100 Pound Prices  
 Figs. 4681-4682 Splicing Compound... Use 100 Pound Prices  
 Balance of Page..... Prices As Shown

**SPECIAL. PETERS RUSTLESS AMMUNITION.**  
 Loaded Shot Shells. Rifle, Pistol and Revolver  
 Cartridges. Write for prices.

**SPECIAL! 'Jiffy Twist' Twisted Asbestos Graphited  
 Packing.** Not shown in Allen's Red Book.  
 Packed in a 10c cellophane package. 12 pack.  
 ages on a 11 by 14 inch card.  
 ★NET CARD OF 12, \$0.65



**SPECIAL! Garden Hose Remnants, 5/8 Inch. Single  
 and Double Braid. Lengths 10 to 35 feet, coupled.**

★NET FOOT COUPLED

5/8 Inch—Single Braid..... \$0.04  
 5/8 Inch—Double Braid..... \$0.05  
 3/4 Inch—Double Braid..... \$0.06



**SPECIAL! Molded Water Hose Remnants.**

**1 INCH—2 BRAID..... ★NET FOOT, \$0.12**

Feet	Lengths	Feet	Lengths	Feet	Lengths
5.....	1	16.....	2	24.....	2
8.....	2	17.....	2	25.....	7
9.....	1	18.....	5	26.....	3
10.....	12	19.....	1	28.....	1
11.....	6	20.....	2	32.....	2
12.....	3	21.....	2	34.....	1
13.....	4	22.....	1	35.....	1
14.....	6	23.....	2	38.....	1
15.....	7				

**1 1/4 INCH—3 BRAID..... ★NET FOOT, \$0.18**

Feet	Lengths	Feet	Lengths	Feet	Lengths
4.....	1	14.....	4	23.....	2
5.....	1	15.....	1	24.....	3
10.....	5	18.....	4	26.....	1
11.....	2	19.....	3	27.....	1
12.....	2	20.....	1	30.....	2
13.....	5	22.....	1	39.....	1

**1 1/2 INCH—3 BRAID..... ★NET FOOT, \$0.26**

Feet	Lengths	Feet	Lengths	Feet	Lengths
6.....	2	18.....	1	27.....	1
10.....	2	19.....	1	28.....	1
12.....	2	23.....	1	29.....	1
13.....	1	25.....	1	35.....	1



**REMNANTS! Beverage Hose.**  
 Heavy red rubber cover. Extra heavy white rubber tube.  
 10 to 49 Foot Lengths.  
 5/16 Inch..... ★NET FOOT, \$0.03  
 3/8 Inch..... ★NET FOOT, \$0.04  
 1/2 Inch..... ★NET FOOT, \$0.05

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



## JUSTRITE GARDEN HOSE NOZZLE

Made of Heavy Cast Brass. Will not Corrode.

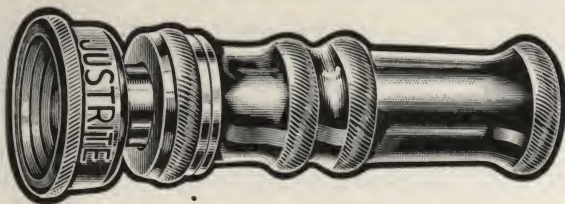


Fig. 85. (PATENTED)

The 'Justrite' Garden Hose Nozzle is easily adjusted to produce:—A FINE SPRAY—A HEAVY SPRAY—A STRAIGHT STREAM for distance—A HEAVY STRAIGHT STREAM for volume—and a COMPLETE SHUT-OFF without leakage. No back spray or drip. Each 'Justrite' is water tested, built for hard service, is STURDY and will stand abuse. The body is knurled at the tip and the base, with two heavy knurls at the center, enabling the user to make adjustments instantly and easily. In the stem construction the discharge openings have a full, clear water way. 1 dozen in a box.

$\frac{3}{4}$  Inch Brass  
EACH, \$0.60  
1 Inch Brass ( $\frac{3}{4}$  inch size with built-up connection).  
EACH, \$1.35

### GIANT-JUSTRITE

Fig. 7025

Size EACH  
1-1/4 inch .....\$10.00  
1-1/2 inch .....\$10.00



## JEWEL CAST BRASS GARDEN HOSE NOZZLE

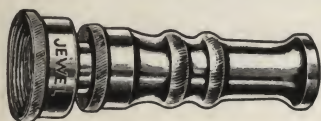


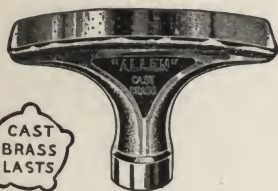
Fig. 4703

Solid cast brass, finished and polished. Quickly adjusted to produce various sprays, straight stream and a complete shut-off without leakage.

EACH, \$0.45

## ALLEN FLAT SPRAY

CAST BRASS BASE



CAST BRASS LASTS

Sprays a rectangular strip about the proportions of 10 to 1. Ideal for all kinds of sprinkling, especially flowers and delicate foliage. Small perforations. Heavy body made of cast brass. The sprinkler part is approximately  $\frac{3}{8}$  inches by  $\frac{5}{8}$  inches.  $\frac{3}{4}$  inch hose thread.

Fig. Finish DOZEN  
7000 Brass \$6.32  
7001 Nickel Plated \$7.00

Fig. 4479. Brass with shut off. Will reduce the volume of water or shut off the supply completely.

DOZEN, \$10.75

## UNIVERSAL SPRAY AUTOMATIC NOZZLE

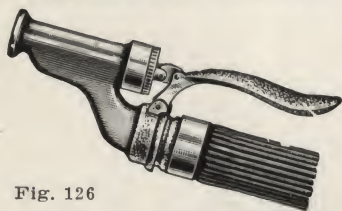


Fig. 126

### AUTOMATIC SHUT OFF

Shut Off Straight Stream Fine Spray

U. S. A. Nozzle is in demand for garage use. Slight pressure on the handle produces a fine spray, further pressure a coarser spray to a straight stream. Automatically shuts off when all pressure on handle is released.

$\frac{3}{4}$  inch, nickel plated.

DOZEN, \$25.25

## GOLDSMITH HOSE RACK



Fig. No. 254

Both hose and rack can be conveniently carried from place to place. The hose hangs on the rack in large, natural coils, which prevents twisting and kinking. The rack is made of pressed steel.

DOZEN, \$14.00

## 'ROSE' SPRAY



Fig. No. 129

Polished brass, with a perforated, bulging face, giving a profuse and well distributed spray.

$\frac{3}{4}$  inch, H. P. T., DOZEN, \$3.50  
 $\frac{1}{2}$  inch, I. P. T., DOZEN, \$3.50

## 'HOT HOUSE' SPRAY

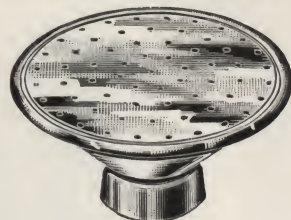


Fig. No. 3604

### STAMPED BRASS

Stamped from heavy sheet brass. Efficient and reasonably priced.  $\frac{3}{4}$  inch hose thread.

3 inch face.....DOZEN, \$5.80  
4 inch face.....DOZEN, \$7.00

Fig. No. 1936

### CAST BRASS

Made with a heavy cast brass base, weighs  $2\frac{3}{4}$  times more than the sheet brass Shower Sprinkler.  $\frac{3}{4}$  inch hose thread.

3 inch face .....DOZEN, \$10.00  
4 inch face .....DOZEN, \$14.00

## 'GREEN HOUSE' SPRAY OR SPRINKLER



Fig. No. 268

CAST BRASS LASTS

This heavy type adjustable sprinkler is designed especially for greenhouse use. It is equipped with two heavy sheet brass plates, one with coarse perforations, (.040 in.), the other with fine (.022 in.). By unscrewing the cast brass collar, either of the two plates can be inserted and used as desired. Diameter of face, 4 inches; made with  $\frac{3}{4}$ -inch hose thread.

DOZEN, \$30.00

Extra Plates ....List Set of 2, \$1.00

## SHUT-OFF CONNECTION

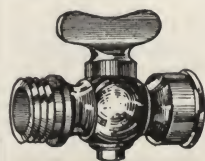


Fig. 1937

Cast brass, polished.  $\frac{3}{4}$  inch male hose thread on one end,  $\frac{1}{2}$  inch female hose thread on the other.

DOZEN \$15.00



## ALLEN REVOLVING LAWN SPRINKLERS

For  $\frac{3}{4}$  Inch Hose Connection. All sprinklers packed each in box, 1 dozen in carton.



Fig. 7010

### 'GREENWOOD'

A low priced, three arm revolving lawn sprinkler. The base is 6 by 5-1/2 inches, finished in red. The stem is finished red. Brass head. Brass arms, 8-1/4 inch spread, (diam.). 9 inches high, 3/4 inch swivel hose connection with die cut threads.

DOZEN, \$12.00



Fig. 7009

### 'WINFIELD'

A medium priced revolving lawn sprinkler that evenly sprinkles about a 30 foot circle with 20 pounds pressure at the sill cock. 9-7/8 inches high. Iron base 6-1/2 by 6-5/8 inches. The brass arms have a spread of 11-1/4 inches (diameter). 3/4 inch H. P. T. connection. Stem and base are finished in red enamel baked on.

DOZEN, \$15.50



Fig. 7008. (Patented)

### 'ANACONDA'

It will sprinkle a circle about 32 feet in diameter with a 20 pound pressure at the sill cock. The base and stem are finished red. Highly polished brass arms and head. 10-3/4 inches high. The base is 8 by 7-3/4 inches. The arms have a 11-1/4 inch spread.

DOZEN, \$19.00

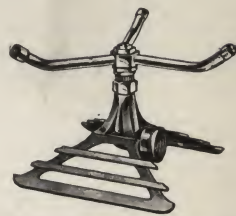


Fig. 7019. (Patented)

### 'ZENITH'

It distributes water evenly and thoroughly. It will sprinkle a circle about 30 feet in diameter with 20 pounds pressure at the sill cock. Polished brass head. Polished brass arms. 4 inches high. 6-1/2 by 6-5/8 inch base.

DOZEN, \$15.50

## "PARKSIDE" UNIVERSAL NOZZLE TYPE SPRINKLER

### Adjustable For All Sprinkling!

You can instantly adjust the 'Parkside' to sprinkle any way you want: a fine mist for new lawns, plants just started, etc.; various sprays for flowers and lawns; or various streams for shrubs, etc.; for large circles to the smallest area; for stationary sprinkling of half circles, triangles, and odd shaped plots. Whether your water pressure is HIGH or LOW, the 'Parkside' will operate efficiently and distribute water thoroughly.

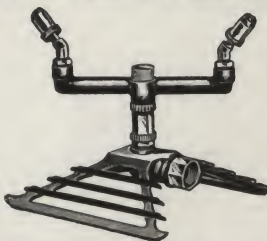


Fig. 7003. (Patented)

### Special Bearing! Adjustable Nozzles!

The bearing is of a special material that will last indefinitely, packed in grease. The brass stop is positive. The brass nozzles are knurled. A stuffing nut holds the nozzles in place after they are adjusted.  $\frac{3}{4}$  inch swivel hose connection with die cut threads. Base and arms are red and black. 7-7/8 inches high. 8x7-3/4 inch base. Shipping weight, dozen, 42 pounds.

DOZEN, \$40.00



## ALLEN 'RED ARROW' LAWN SPRINKLER

IT SPRINKLES AN AREA OF 60 FEET OR LARGER IN DIAMETER. DO NOT USE FOR SMALL LAWNS.

A practical sprinkler of the rotary type, operated by means of a simple vibrating mechanism and the angle of the discharge head. For use on large lawns, estates, cemeteries, parks, golf greens, and fairways where ONLY municipal or average water pressure is available. It will discharge from 1.1 to 3.6 gallons each minute and will cover a diameter from about 60 to 85 feet.

The two discharge outlets adapted to sprinkle different areas insure an even distribution of water and on account of its slow rotary motion (as low as one revolution a minute) a larger area can be covered with less frequent shifting of the hose and sprinkler.

Finished in red and black enamel. For 3/4 inch hose connection only. With one 1/8 inch and one 5/32 inch nozzle to take care of the difference in operating pressures. 10-1/4 inches high. 8 by 7-3/4 inch base.

EACH

With Base .....\$4.20

With Roller .....\$5.30

Less Base or Roller..\$3.20



Fig. 7020

## Allen 'Arrow Golf' Sprinkler

FOR AREAS 80 FEET IN DIAMETER WITH 40 POUNDS WATER PRESSURE RANGING TO APPROXIMATELY 170 FEET IN DIAMETER WITH 100 POUNDS WATER PRESSURE.

It distributes water evenly, thoroughly, and efficiently. Its two discharge outlets and back spray sprinkle different areas, the pan test proves the distribution is even. It revolves SLOWLY, it is simple in construction having only one vibrating part. It will operate regardless of the contour of the green or fairway. NO FLOODING. It is sturdy, all parts are extra heavy. 5 discharge tips for different pressure and coverage: 3/16; 1/4; 5/16; 3/8; and 7/16 inch. 27-1/4 inches long overall. 15-3/8 inches high. Mounted on a sturdy steel roller 16 inches long and 4 inches in diameter. 1 INCH SWIVEL HOSE CONNECTION and reducing fitting for 3/4 inch hose.

EACH,  
\$21.00

Less Base,

EACH, \$16.00



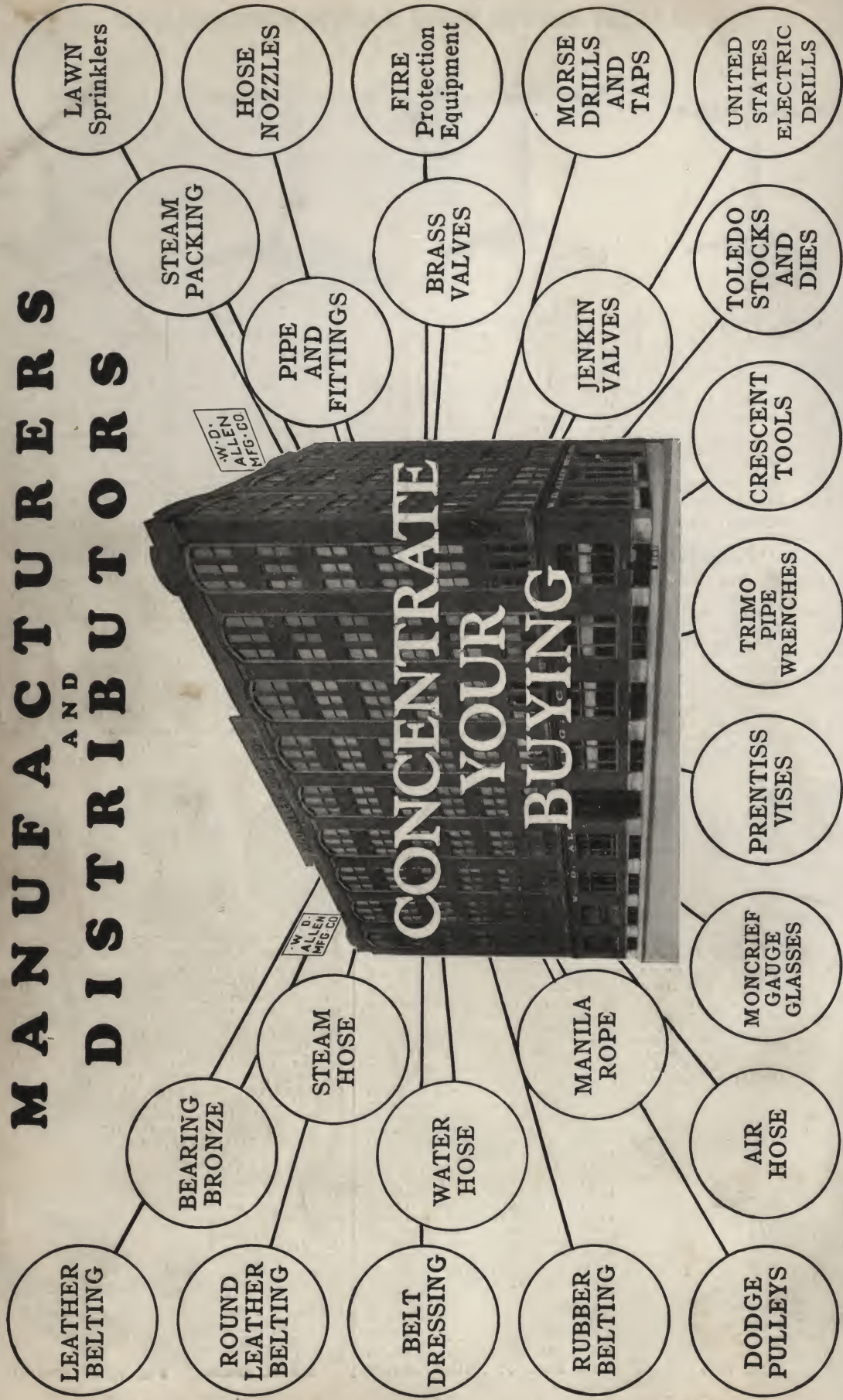
Fig. 7021. (Patented)

SEE PAGE 58 OF THIS DISCOUNT SHEET FOR YOUR PRICES!



# W. D. ALLEN MANUFACTURING COMPANY

## MANUFACTURERS AND DISTRIBUTORS





JULY, 1937

# W. D. ALLEN

ESTABLISHED 1887. MANUFACTURERS AND DISTRIBUTORS

## MANUFACTURING COMPANY

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All Prices Quoted are NET or with List Prices and a DISCOUNT. This issue supersedes previous Allen's Red Books.

PRICES ARE EFFECTIVE AS OF DATE OF ISSUE, AND ARE SUBJECT TO REVISION WITHOUT NOTICE

### TERMS

Terms are thirty days from the date of invoice less 2% discount in ten days. All prices are F.O.B. cars, Chicago. All purchases are payable by Chicago or New York Draft, Post Office Money Order, or Express Money Order.

### CLAIMS

All claims for corrections, deductions or shortages must be presented within 10 days after receipt of goods.

### TAXES

Prices are subject to any Federal Tax or State Tax that is now in effect, or that may be effected.

### INSTRUCTIONS IN ORDERING

1. Write orders plainly.
2. State the following: Quantity. Size. Figure number. Kind or brand of goods wanted. Any special information there may be about the goods.
3. Specify how merchandise is to be shipped: Freight, specify railroad and destination station. Truck, specify transportation company and destination. Parcel post, specify Post Office. Express, specify railroad and destination station. Shipments will be made by the method that we consider the best unless shipping specifications are received.

### CRATING

As a general rule we do not charge for packing, except on some goods where the margin of profit will not permit our doing otherwise. Therefore goods mentioned below will always be billed plus a charge for crating or for wrapping: Lead pipe. Sheet lead. Traps and bends. Sinks. Asbestos mill-board. Saws. Etc.

### RETURN GOODS

Customers desiring to return merchandise for credit will please use the following instructions:

1. Write for permission before returning goods. There are some goods that are special and cannot be returned for credit, and it is only an expense to customers to return same.
2. State circumstances in full concerning the transaction.
3. Give us invoice date and order number.
4. Prepay freight or transportation charge on return shipment. If fault is obviously ours a credit will be issued for the transportation charge.
5. Attach your name to the shipment. If goods are received without your name attached there is no way of knowing who is to receive credit.
6. Mail freight or transportation receipt to us.
7. Merchandise will be credited at the market price at the time goods are returned.

ALL PHONES: RANDOLPH 8181

General Offices, Sales Rooms and Warehouse

566-568-570 West Lake Street, Chicago, Illinois

Manufacturing Plant

5630 to 5656 West Roosevelt Road, Chicago, Illinois



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5172	67	5225	166	5276	344	5327	88A	6021	432	6082	437	6157	441	6216	433
5173	68	5226	166	5277	344	5328	363	6022	432	6083	437	6158	441	6217	434
5174	68	5227	166	5278	344	5329	446	6023	433	6084	438	6159	441	6218	434
5175	68	5228	166	5279	389	5330	263	6024	433	6085	438	6160	441	6219	442
5176	68	5229	217	5280	68	5331	263	6028	433	6086	438	6161	441	6220	442
5177	68	5230	419B	5281	200	5332	186	6033	433	6087	438	6166	443	6221	442
5178	68	5231	419B	5282	200	5333	243	6034	433	6093	434	6167	443	6222	442
5180	68	5232	419B	5283	200	5334	243	6036	433	6100	430	6168	443	6223	442
5181	69	5233	419B	5284	200	5335	243	6037	434	6106	446	6169	444	6224	442
5182	69	5234	419B	5285	200	5336	243	6039	434	6109	431	6171	444	6800	400
5183	69	5235	419B	5286	200	5337	243	6040	434	6110	431	6172	445	7020	58
5184	69	5236	419B	5287	364	5338	243	6041	434	6111	431	6173	445	7111	444
5185	69	5237	419B	5288	364	5339	242	6042	434	6112	433	6174	445	039572	193
5186	69	5238	419B	5289	389	5340	242	6043	434	6113	431	6175	445	089040	193
5187	69	5239	419B	5290	88B	5341	242	6044	434	6120	437	6176	445	089041	193
5188	69	5240	419B	5291	399	5342	242	6045	434	6121	437	6177	445		
5189	69	5241	421	5292	399, 444	5343	418B	6046	434	6122	437	6178	445		
5190	163B	5242	322	5293	399, 444	5344	75C	6047	434	6123	437	6179	445		
5191	163B	5243	402	5294	399	5345	409C	6048	434	6124	437	6180	445		

INDEX

SAVE  
YOUR TIME  
ALWAYS USE  
ALLEN'S RED BOOK



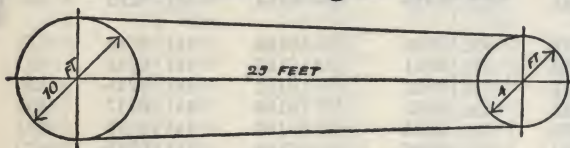
# MANUFACTURERS OF LEATHER BELTING SINCE 1892

## Instructions For Ordering Leather Belting

Essential information is needed by our engineering department if maximum belt efficiency is expected. Power costs money. Improperly engineered belts waste power. Machine efficiency depends on **BELT EFFICIENCY**. The belt costs so little, the machine so much, to **BELT RIGHT** is Economy. Help us to help you by telling us the following:

- Face and diameter of both pulleys.
- Distance between centers of shafts.
- Speed of belt or R.P.M. of motor.
- Horsepower.
- Conditions, damp or dry.
- Kind of machine to be driven.
- Specify whether operated with or without a motor base, or tension idler pulley.
- If a line shaft or countershaft drive is used, please specify.

## To Find the Length of Belt



Add together the diameters of the two pulleys, take half the sum and multiply by three and one-seventh. Add this product to twice the distance between the centers of shafts. The result will be the total length of belt.

**NOTE:** This rule applies to the majority of cases, where the diameters of pulleys do not vary greatly. Where the diameter of the driving pulley greatly exceeds that of the driven, however, it is not strictly accurate.

### Example (See Illustration)

- $10 + 14 = 24$  (sum of diameters of pulleys).
- $24 \div 2 = 12$  ( $\frac{1}{2}$  sum of diameters).
- $12 \times 3 \frac{1}{7} = 22$  ( $\frac{1}{2}$  of circumference of pulleys).
- $2 \times 23 = 46$  (twice distance between centers).
- $22 + 46 = 68$  (length of belt).

## Leather Belting Thickness

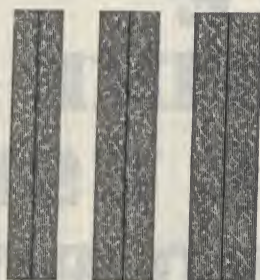
Tolerances allowed over or under are  $\frac{1}{32}$  of an inch.

### SINGLE



Light Medi- Heavy  
um

### DOUBLE



Light Medium Heavy

## Minimum Pulley Diameters For Leather Belting

Speed Feet, Each Minute	Up To 3000	3000 to 4000	4000 or More
----------------------------	---------------	-----------------	-----------------

### AJAX OR OTTER

Light Single	2 1/2	3	3 1/2
Medium Single	3 1/2	5	6 1/2
Heavy Single	4 1/2	6	7 1/2
Ex. Heavy Single	5	7	9
Light Double	6	8	10
Medium Double	10	12	16
Heavy Double	15	18	24

### ARROW

Light Single	2 1/2	5	*
Medium Single	3 1/2	7	*
Heavy Single	4 1/2	9	*
Light Double	6	12	*
Medium Double	10	20	*
Heavy Double	15	30	*

\*Do Not Use

### VICTORY

Regular Single	4	*	*
Light Double	6	*	*
Medium Double	8	*	*

\*Do Not Use

### SUPERTAN

Light Single	1 1/2	2	2 1/2
Medium Single	2 1/2	3	3 1/2
Heavy Single	3 1/2	5	6 1/2
Light Double	4	6	8
Medium Double	6	8	10
Heavy Double	10	14	16

Where the leather belt is used on Planers or other drives with an automatic or hand shift A **DOUBLE BELT IS NECESSARY**.

## Horse Power Table

Conservative table of horse power transmitted by AJAX Oak Tanned and OTTER Waterproof Flat Leather Belting.

### HEAVY SINGLE BELTING

Speed in Feet Each Minute	600	1200	1800	2400	3000	3600	4200	4800	5400	6000
Width of Belt	Horse-Power									
2 Inch	2	4	6	8	10	12	14	16	18	20
3 Inch	3	6	9	12	15	18	21	24	27	30
4 Inch	4	8	12	16	20	24	28	32	36	40
5 Inch	5	10	15	20	25	30	35	40	45	50
6 Inch	6	12	18	24	30	36	42	48	54	60
8 Inch	8	16	24	32	40	48	56	64	72	80
9 Inch	9	18	27	36	45	54	63	72	81	90
10 Inch	10	20	30	40	50	60	70	80	90	100
12 Inch	12	24	36	48	60	72	84	96	108	120

### AJAX & OTTER

Heavy Single—See table.	Increase 10%.
Medium Single—Reduce 10%.	See table.
Light Single—Reduce 20%.	Reduce 10%.
Heavy Double—Increase 60%.	Double table.
Medium Double—Increase 50%.	Increase 60%.
Light Double—Increase 20%.	Increase 40%.

### SUPERTAN

The horse power rating shown provides for a safety factor of 10 to 1 at operating tensions. Shock load and high tension starting loads reduce the safety factor. Therefore, wider or thicker belts should be used to absorb these extra tensions. For unusual conditions consult our Engineering Department.



# MANUFACTURERS OF LEATHER BELTING SINCE 1892

## Leather Belting Standard List Prices

Adopted by the Leather Belt Makers' Association, Revised June 8, 1932—Prices are List Each Foot

Width, Single In. Thickness	Double Thickness	Width, Single In. Thickness	Double Thickness	Width, Single In. Thickness	Double Thickness
1/2... \$0.12	\$0.24	6.... \$1.44	\$ 2.88	34.... \$ 8.16	\$16.32
3/4... .18	.36	7.... 1.68	3.36	36.... 8.64	17.28
1.... .24	.48	8.... 1.92	3.84	38.... 9.12	18.24
1 1/4... .30	.60	9.... 2.16	4.32	40.... 9.60	19.20
1 1/2... .36	.72	10.... 2.40	4.80	42.... 10.08	20.16
1 3/4... .42	.84	12.... 2.88	5.76	44.... 10.56	21.12
2.... .48	.96	14.... 3.36	6.72	46.... 11.04	22.08
2 1/4... .54	1.08	16.... 3.84	7.68	48.... 11.52	23.04
2 1/2... .60	1.20	18.... 4.32	8.64	50.... 12.00	24.00
2 3/4... .66	1.32	20.... 4.80	9.60	52.... 12.48	24.96
3.... .72	1.44	22.... 5.28	10.56	54.... 12.96	25.92
3 1/2... .84	1.68	24.... 5.76	11.52	56.... 13.44	26.88
4.... .96	1.92	26.... 6.24	12.48	60.... 14.40	28.80
4 1/2... 1.08	2.16	28.... 6.72	13.44	64.... 15.36	30.72
5.... 1.20	2.40	30.... 7.20	14.40	68.... 16.32	32.64
5 1/2... 1.32	2.64	32.... 7.68	15.36	72.... 17.28	34.56

### SPLICE CHARGE

The charge for a splice in endless belts, or belts prepared for endless, is an additional length equal to:

FOR SINGLE BELTS, the width of the belt plus 6 inches, with a minimum of 12 inches and a maximum of 24 inches.

FOR DOUBLE and 3-PLY BELTS, the width of the belt plus 12 inches, with a minimum of 18 inches and a maximum of 36 inches.

## Leather Belting Discounts

### AJAX OAK TANNED — Fig. 362 — See Page 6 For Description

#### SINGLE THICKNESS

Light, About 9/64 Inch..... **40-2 1/2-5% OFF**  
Medium, About 11/64 Inch..... **30-10-5% OFF**  
Heavy, About 13/64 Inch..... **25-5% OFF**

#### DOUBLE THICKNESS

Light, About 17/64 Inch..... **40-2 1/2-5% OFF**  
Medium, About 20/64 Inch..... **30-10-5% OFF**  
Heavy, About 23/64 Inch..... **25-5% OFF**

### SUPREME SPECIAL TANNED — Fig. 4632 — See Page 7 For Description

#### SINGLE THICKNESS

Light, About 9/64 Inch..... **40-2 1/2% OFF**  
Medium, About 11/64 Inch..... **30-10% OFF**  
Heavy, About 13/64 Inch..... **25% OFF**

#### DOUBLE THICKNESS

Light, About 17/64 Inch..... **40-2 1/2% OFF**  
Medium, About 20/64 Inch..... **30-10% OFF**  
Heavy, About 23/64 Inch..... **25% OFF**

### OTTER WATERPROOF OAK TANNED — Fig. 364 — See Page 7 For Description

#### SINGLE THICKNESS

Light, About 9/64 Inch..... **40-2 1/2% OFF**  
Medium, About 11/64 Inch..... **30-10% OFF**  
Heavy, About 13/64 Inch..... **25% OFF**

#### DOUBLE THICKNESS

Light, About 17/64 Inch..... **40-2 1/2% OFF**  
Medium, About 20/64 Inch..... **30-10% OFF**  
Heavy, About 23/64 Inch..... **25% OFF**

### ARROW OAK TANNED — Fig 366 — See Page 7 For Description

#### SINGLE THICKNESS

Light, About 8/64 Inch..... **55-5% OFF**  
Medium, About 10/64 Inch..... **55% OFF**  
Heavy, About 12/64 Inch..... **45% OFF**

#### DOUBLE THICKNESS

Light, About 16/64 Inch..... **55-5% OFF**  
Medium, About 18/64 Inch..... **55% OFF**  
Heavy, About 21/64 Inch..... **45% OFF**

### SUPERTAN WATERPROOF — Fig. 361 — See Page 8 For Description

#### SINGLE THICKNESS

Light, About 10/64 Inch..... **15% OFF**  
Medium, About 12/64 Inch..... **10% OFF**  
Heavy, About 14/64 Inch..... **5% OFF**

#### DOUBLE THICKNESS

Light, About 17/64 Inch..... **15% OFF**  
Medium, About 20/64 Inch..... **10% OFF**  
Heavy, About 23/64 Inch..... **5% OFF**

### VICTORY WATERPROOF OAK TANNED — Fig. 4028 — See Page 8

#### SINGLE THICKNESS

Light, About 7/64 Inch..... **65-5% OFF**  
Medium, About 9/64 Inch..... **60-5% OFF**  
Heavy, About 11/64 Inch..... **55-5% OFF**

#### DOUBLE THICKNESS

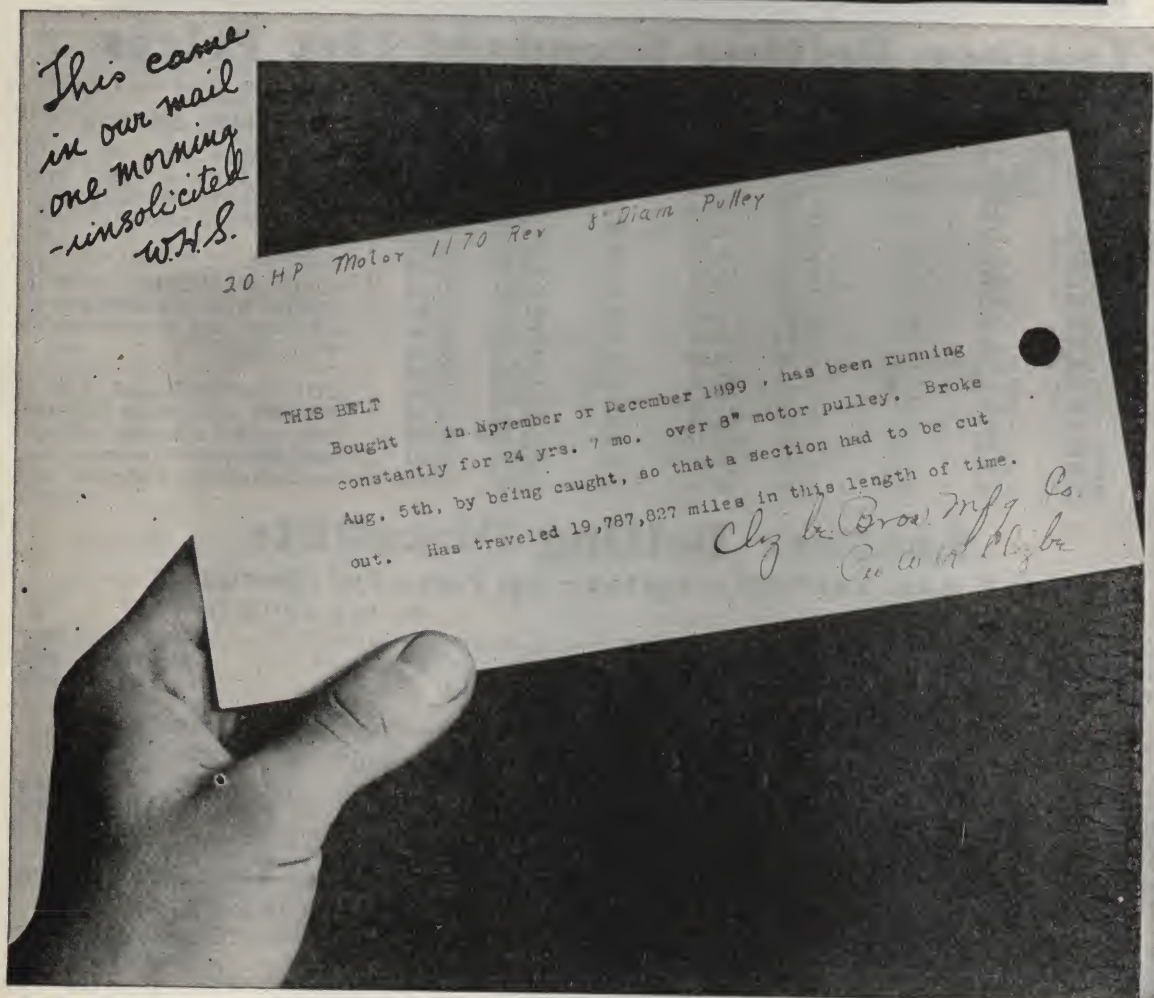
Light, About 14/64 Inch..... **65-5% OFF**  
Medium, About 18/64 Inch..... **60-5% OFF**  
Heavy, About 20/64 Inch..... **55-5% OFF**

**LEATHER PULLEY COVERING.** Prevents excess belt slipping..... **55% OFF**

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# MANUFACTURERS OF LEATHER BELTING SINCE 1892



A Leather Belt Can Be An "EXPENSE" Item, This 8 Inch Medium Double Allen Made Ajax Belt Proved To Be a Good Investment.

## AJAX OAK TANNED LEATHER BELTING

**For All Services In Dry Places.  
Capable of Extra Heavy Work.**

W.D. ALLEN MFG. CO.  
AJAX BRAND  
BEST QUALITY  
CHICAGO, ILL.

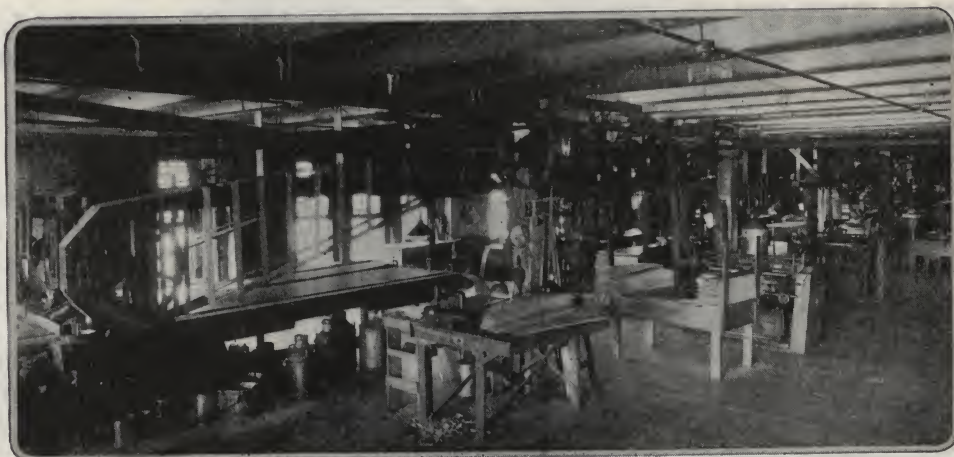
Fig. 362

anted. Single thickness is regularly made up to 8 inch. Double and triple thick-  
ness in any width.

**See Page 5 For List Prices and Discounts  
W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# MANUFACTURERS OF LEATHER BELTING SINCE 1892



*A Section of Allen's Belt Manufacturing Division, 566 West Lake Street, Chicago*

## **SUPREME** **SPECIAL TANNED LEATHER BELTING**

**For All Services. Capable of Extra Heavy Work**



Fig. 4632

A new improved Leather Belt with a Special Tannage that has proven to give longer life, more pliability, more pulley contact, a better grip and less stretch than oak tanned belts. The flexibility of this belt makes it exceptionally good for short center drives or for use on small diameter pulleys. Can be furnished with Waterproof Cement for use in damp places at the same discounts as Otter. Single thickness is regularly made up to 8 inch. Double and triple thickness is made in any width.

## **OTTER** **WATERPROOF OAK TANNED LEATHER BELTING**

**For Light to Extra Heavy Service In Damp or Dry Places**



Fig. 364

The OTTER waterproof belt is made with the same careful selection as the "Ajax" belt and is our highest quality with the addition that it is made with a special waterproof cement and is given a special oil treatment which strengthens and lubricates the fibers and helps to counteract deterioration caused by water, oil, or steam. Absolutely guaranteed not to come apart and fully warranted under all normal conditions. Single thickness is regularly made up to 8 inch. Double and triple thickness is made in any width.

## **ARROW** **OAK TANNED LEATHER BELTING**

**For Light to Heavy Work In Dry Places**



Fig. 366

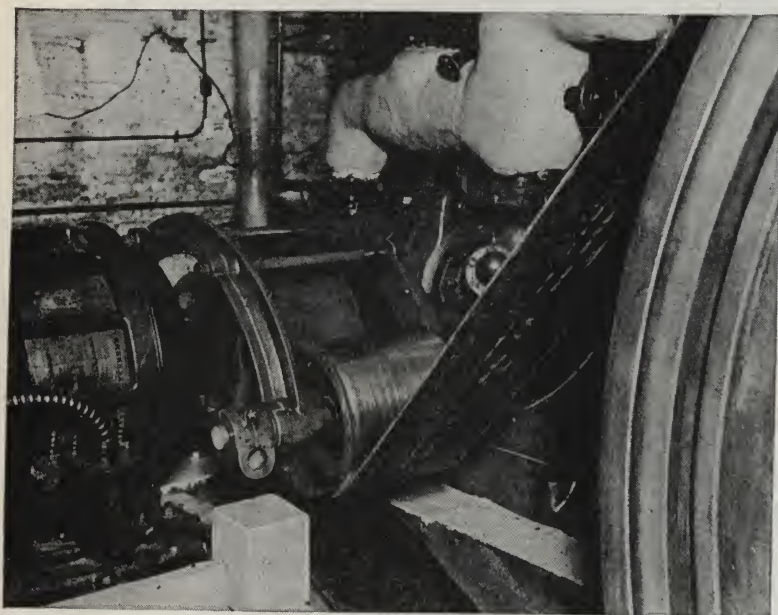
A carefully, Allen made pure oak tan belt for work where the heaviest service is not required. If the belt is to be used outside or in damp places, please SPECIFY and the belt will be made with Waterproof Cement at no extra charge. Single thickness up to 6 inch. Double thickness is made up to 8 inch.

**See Page 5 for List Prices and Discounts**



# MANUFACTURERS OF LEATHER BELTING SINCE 1892

## **SUPERTAN** RETAN OR SPECIAL TANNAGE WATERPROOF LEATHER BELTING



The 14 inch Supertan Double Leather Belt illustrated here has been running constantly day and night for over eight years in Chicago's largest ice plant, and during that time has been taken up only once.

This Lenix drive operating with 18 inch and 120 inch pulleys develops 100 horsepower at 3600 R.P.M., and proves that ALLEN-MADE Supertan Leather Belt is a good investment.

**For All Services in Damp or Dry Places. Capable of Extra Heavy Work. Very High Belt Gripping and Pulling Power.**



Fig. 361

Extremely pliable and flexible. Gives greatly increased friction and pulling power over oak tanned belting and will pull loads where other belts fail. For use where out-of-the-ordinary temperature or atmospheric conditions exist. The special tannage retards deterioration caused by water, steam, acid, gas fumes, great heat, and extreme cold. Made with our special waterproof cement. Has greater tensile strength than oak tanned belting and will last longer. Single thickness up to 8 inch. Double thickness, any width. Triple thickness, any width.

**See Page 5 For List Prices and Discounts**

## **VICTORY** WATERPROOF OAK TANNED LEATHER BELTING

**For Light Work in Damp or Dry Places**



Fig. 4028

Recommended where the work is light or intermittent. Carefully made from a good grade of oak tanned leather. Our best grade of waterproof cement is used so that the Victory belt can be safely used under dry or damp conditions. Single thickness up to 6 inches. Double thickness up to 12 inches.

**See Page 5 For List Prices and Discounts**

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# MOHAWK

**INDIAN TAN LEATHER  
SOLID ROUND BELTING**

**NOTHING  
BETTER  
FOR  
STRENGTH  
OR  
SERVICE**



**MADE  
IN  
OUR  
OWN  
FACTORY**

Fig. No. 3232

For strength and splendid service you will find nothing better than "Mohawk" round belting. We are very careful in the selection of leather used in this belting—nothing but choice stock of great tensile strength is used.

Indian tan leather has practically all of the stretch taken out of it, and it is very flexible. It also has a high coefficient of friction, so that "Mohawk" round belting can be run slack to trans-

mit the maximum of power. For various household electrical appliances, such as washing machines and mangles, and for factory sewing machines, we can highly recommend "Mohawk." 100 ft. on a spool.

**★ NET PRICES PER 100 FEET**

Size, Inches....	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
100 feet or more.....	\$8.25	\$13.50	\$20.00
Less than 100 feet .....	\$10.50	\$16.00	\$22.00

## ACE ROUND SOLID OAK LEATHER BELTING

Made of pure oak leather, thoroughly stretched. We use nothing but choice stock in making our solid round belting. This is not a competitive grade but an A-1 product. Solid round leather belting is made up only to  $\frac{3}{8}$  inch in diameter. When a larger size is required, our patent round solid or our round twist belting is recommended.

**★ NET 100 FEET**

Size, Inches	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
100 Feet or More ..	\$3.50	\$3.65	\$7.00	\$10.80	\$16.00
Less than 100 Feet	\$3.85	\$4.00	\$7.75	\$11.90	\$16.75



Fig. No. 591

## BLUE LABEL ROUND LEATHER BELTING

Fig. No. 3238

Made to meet the demand for a popular priced belting for household appliance use. Blue Label will give satisfactory service on washing machines, ironing machines and similar household appliances, and can be sold at an attractively low price. Made in 3 sizes. 100 ft. on spool.

**★ NET 100 FEET**

Size, Inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
100 Feet or More....	\$5.50	\$8.25	\$13.25
Less than 100 Feet...	\$6.25	\$9.00	\$14.90





# **RAWHIDE ROUND SOLID LEATHER BELTING**

Fig. 392

Rawhide Belt possesses great tensile strength and is largely used where it is required to run over and under many pulleys, where the load is irregular, or at unusually high speed.

## ★ NET 100 FEET

Diameter Inches	Lots of 100 Feet	Less Than 100 Feet
1/8	\$ 6.20	\$ 8.00
3/16	\$ 6.60	\$ 8.25
1/4	\$ 9.70	\$11.00
5/32	\$12.00	\$13.25
3/16	\$16.00	\$17.90
7/8	\$23.50	\$24.75



# **PATENT ROUND SOLID LEATHER BELTING**



Fig. 592

This belting is made from pure oak tanned stock, built up to full size and held together by a patented process of copper fasteners or rivets. The illustration shows the method of construction. Where a solid round belt larger than 3/8 inch is required, this is a very desirable belt.

## ★ NET PRICES PER 100 FT.

Diameter	Less than 100 Ft.	100 Feet or More
1/2 inch.....	\$29.25	\$26.50
5/8 inch.....	\$55.90	\$50.75
3/4 inch.....	\$77.75	\$70.70

# **ROUND TWIST BELTING**



Diameter Inches	★ NET FOOT	Diameter Inches	★ NET FOOT
-----------------	------------	-----------------	------------

Fig. 394. RAWHIDE

1/16	\$0.16	7/32	\$0.19
3/32	\$0.11	1/4	\$0.23
1/8	\$0.11	5/16	\$0.30
5/32	\$0.14	3/8	\$0.38
3/16	\$0.18	1/2	\$0.53

Fig. 2851. OAK TANNED

3/8	\$0.19	5/8	\$0.34
1/2	\$0.26	3/4	\$0.43

# **ROUND BELT COUPLINGS**



Fig. 390

For round belts of all descriptions. Carefully finished steel. 1 dozen pairs in box.

## LIST PRICES PER DOZEN PAIRS

Outside Diam.	1/8	3/16	1/4	5/16
Dozen Pairs	\$3.00	\$2.50	\$2.00	\$2.50
Outside Diam.	3/8	7/16	1/2	5/8
Dozen Pairs	\$3.00	\$3.50	\$4.00	\$6.00
Outside Diam.	3/4	7/8	1	
Dozen Pairs	\$9.00	\$13.00	\$18.00	

DISCOUNT	1/8 to 3/16 inch	25% OFF
	3/4 to 1 inch	35% OFF

# **"V" LEATHER BELTING**

See Page 98 For "V" Rubber Belting



Fig. 579

For Tractor Radiator Fans, or other places where "V"-shaped belting is required. Consists of two pieces of leather cemented and fastened together with a special linen thread of great strength. Furnished from stock in two sizes as listed. Any other size made to order.

Size 1/2 x 5/16 x 1 1/32	★ NET FOOT, \$0.14
Size 5/8 x 1/2 x 1 1/32	★ NET FOOT, \$0.17

Oil Dressed—Net per foot, extra 1c.

# **WATERPROOF LEATHER BELTING**

**For Fan Belts, Washing Machines, House Pumps, Etc.**

For the buyer who wishes to carry a roll of belting in stock and make endless fan belts.

This is good, strong, well made belting, made short lap from oak tanned stock and waterproofed. Use our "Otter" cement with this for best results.



Fig. 2852

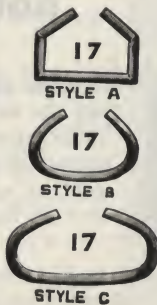
Width Inches	★ NET 100 FEET	Width Inches	★ NET 100 FEET
3/4	\$6.85	1 3/4	\$15.95
1	\$9.15	2	\$18.25
1 1/4	\$11.50	2 1/2	\$22.80
1 1/2	\$13.70	3	\$27.35

# **SEWING MACHINE BELT HOOKS**

Fig. 398

For all round belting. Each size in three styles as illustrated. Solid styles and sizes to box, 500 in box.

## LIST EACH BOX



No.	For Belt Diameter	LIST BOX
14	3/8	\$1.50
15	5/16	1.25
16	1/4	1.13
17	3/16	1.00

DISCOUNT	Full Boxes	60% OFF
	Less than 500	LIST NET

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO



# RUBBER BELTING

High quality rubber is always used in Allen's Rubber Belting. This is the same high quality that has stood the test for more than thirty-five years and kept the confidence of thousands of customers. Make Allen your first choice for Rubber Belting assuring yourself of proven quality, long service and fair prices.

## Rubber Belting List

Inches	2-Ply	3-Ply	4-Ply	5-Ply	6-Ply
1	\$0.18	\$0.20	\$0.24	.....	.....
1¼	.23	.26	.30	.....	.....
1½	.27	.31	.36	\$0.45	.....
1¾	.32	.36	.42	.53	.....
2	.34	.39	.46	.58	\$0.69
2½	.42	.48	.56	.70	.84
3	.48	.55	.65	.81	.98
3½	.57	.65	.76	.95	1.14
4	.61	.70	.82	1.03	1.23
4½	.....	.78	.92	1.15	1.38
5	.....	.87	1.02	1.28	1.53
6	.....	1.04	1.22	1.53	1.83
7	.....	1.22	1.43	1.79	2.15
8	.....	1.31	1.54	1.93	2.31
9	.....	.....	1.73	2.16	2.60
10	.....	.....	1.92	2.40	2.88

In.	4-Ply	5-Ply	6-Ply	7-Ply	8-Ply	9-Ply	10-Ply
11	\$2.11	\$2.64	\$3.17	\$3.69	\$4.22	\$4.75	\$5.28
12	2.30	2.88	3.45	4.03	4.60	5.18	5.76
13	2.50	3.13	3.75	4.38	5.00	5.63	6.26
14	2.69	3.36	4.04	4.71	5.38	6.05	6.72
15	2.88	3.60	4.32	5.04	5.76	6.48	7.20
16	3.08	3.86	4.62	5.40	6.16	6.94	7.72
18	3.46	4.32	5.20	6.06	6.92	7.78	8.64
20	3.84	4.80	5.76	6.72	7.68	8.64	9.50
22	4.22	5.28	6.34	7.38	8.44	9.50	10.56
24	4.60	5.76	6.90	8.06	9.20	10.36	11.52
26	.....	6.26	7.50	8.76	10.00	11.26	12.52
28	.....	6.72	8.08	9.42	10.76	12.10	13.44
30	.....	7.20	8.64	10.08	11.52	12.96	14.40
32	.....	7.72	9.24	10.80	12.32	13.88	15.44
34	.....	8.18	9.82	11.46	13.08	14.72	16.36
36	.....	8.64	10.40	12.12	13.84	15.56	17.28

## ENDLESS RUBBER BELT LIST

50 feet x 6 inches, 4-ply.....	\$ 64.50
60 feet x 6 inches, 4-ply.....	\$ 77.00
75 feet x 6 inches, 4-ply.....	\$ 95.00
100 feet x 6 inches, 4-ply.....	\$125.50
50 feet x 7 inches, 4-ply.....	\$ 75.50
75 feet x 7 inches, 4-ply.....	\$111.50
100 feet x 7 inches, 4-ply.....	\$147.00
125 feet x 7 inches, 4-ply.....	\$183.00
50 feet x 8 inches, 4-ply.....	\$ 81.50
75 feet x 8 inches, 4-ply.....	\$120.50
100 feet x 8 inches, 4-ply.....	\$158.50
125 feet x 8 inches, 4-ply.....	\$197.00
150 feet x 8 inches, 4-ply.....	\$235.50

## ENDLESS BELTS

The material and labor charges for making rubber belts endless are: Belts less than 10 inches wide, 15 feet extra; Belts 10 inches wide and over, 10 feet extra.

## Helpful Suggestions

Most rubber belt failures are traceable to too small pulleys and too narrow belts. A large pulley increases the arc of contact and transmits the power more easily, therefore the pulleys should be as large as practicable. The following paragraph gives the recommended minimum diameter of pulleys that should be used for economical operating conditions.

4 ply, 12 in. pulley; 5 ply, 18 in. pulley; 6 ply, 24 in. pulley; 7 ply, 30 in. pulley; 8 ply, 36 in. pulley; 9 ply, 42 in. pulley; 10 ply, 48 in. pulley.

For exceptionally heavy duty the best grade of belt obtainable is cheapest in the long run. Tight belts are a cause for belt failure. Belts should run without slipping, and still be moderately slack. Do not use belt oil or belt dressings containing mineral oil or rosin. Seam of rubber belt in the folded type should be run away from pulley.

## Rubber Belting Discounts

For the convenience of customers who wish to use the standard list in figuring their costs, we give here the discounts for our different brands, applying to standard list.

	Discounts For One Size In One Shipment		
	1 to 99 Feet	100 to 249 Feet	250 Foot Rolls
Three Star Friction Surface Belting .....	37%	37-10%	37-10-10%
Lexington Red Friction Surface Belting.....	41%	41-10%	41-10-10%
Blue (United States) Friction Surface Belting	47%	47-10%	47-10-10%
Yale Smooth Cover Belting .....	50%	50-10%	50-10-10%
High Speed Raw Edge Flexible Belting .....	23%	23-10%	23-10-10%
Elevator Belting .....	50%	50-10%	50-10-10%

Note: Prices on the following pages are NET, based on the standard list and discounts above.



*Something Definitely Better*

# LEXINGTON

## FRICITION SURFACE RUBBER BELTING

**Full 32 Ounce Duck  
25 Pound Friction**



Fig. 420

"Lexington" is recommended to the buyer who wants something definitely better than the general run of "good rubber belting." If you were to cut open a sample of this remarkably superior belting you would find that it is made of 32-ounce duck, held together by a strong adhesive friction which insures against ply separation. "Lexington" rubber belting, with its unusual flexibility and friction surface, hugs the pulley closely and delivers the maximum power. It is adapted for the most trying transmission purposes, and will give long and satisfactory service.

### ★ NET FOOT—CUT LENGTHS

Inches	3 Ply	4 Ply	5 Ply	6 Ply
1	\$0.12	....	....	....
1-1/4	\$0.15	....	....	....
1-1/2	\$0.18	....	....	....
2	\$0.23	\$0.27	....	....
2-1/2	\$0.28	\$0.33	....	....
3	\$0.32	\$0.38	....	....
3-1/2	\$0.38	\$0.45	....	....
4	....	\$0.48	\$0.61	\$0.73
4-1/2	....	\$0.54	....	....
5	....	\$0.60	\$0.76	\$0.90
6	....	\$0.72	\$0.90	\$1.08
7	....	\$0.84	\$1.06	\$1.27
8	....	\$0.91	\$1.14	\$1.36
9	....	\$1.02	\$1.27	\$1.53
10	....	\$1.13	\$1.42	\$1.70
11	....	\$1.24	\$1.56	\$1.87
12	....	\$1.36	\$1.70	\$2.04
13	....	\$1.48	\$1.85	\$2.21
14	....	\$1.59	\$1.98	\$2.38
15	....	\$1.70	\$2.12	\$2.55
16	....	\$1.82	\$2.28	\$2.73

**1 to 99 Feet ..... NET**  
**100 to 249 Feet ..... 10% OFF**  
**250 Foot Rolls or More of a Size in**  
**One Shipment ..... 10-10% OFF**



*For Extra Hard Service*

# THREE STAR

## FRICITION SURFACE RUBBER BELTING



### Specially Constructed Extra Heavy Duck

The very highest quality of rubber belting it is possible to produce. The fabric is specially constructed extra heavy duck and the friction which holds the plies together is the strongest ever put into a belt. A gum cushion under the top ply resists moisture and increases the flexibility and life of the belt. Three Star Belting is made with a friction surface which eliminates slipping and transmits the utmost power. Three Star Belting is almost too good for any but the hardest service, although it will prove a good investment for any service because of its great durability. It is specially recommended for difficult drives. For mines, paper and saw mills it is without equal.



Fig. 425

### ★ NET FOOT CUT LENGTHS

Inch	3 Ply	4 Ply	5 Ply	6 Ply
1	\$0.13	....	....	....
1-1/4	\$0.16	....	....	....
1-1/2	\$0.20	....	....	....
2	\$0.25	\$0.29	....	....
2-1/2	\$0.30	\$0.35	....	....
3	\$0.35	\$0.41	....	....
3-1/2	....	\$0.48	....	....
4	....	\$0.52	\$0.65	\$0.77
4-1/2	....	\$0.58	....	....
5	....	\$0.64	\$0.81	\$0.96
6	....	\$0.77	\$0.96	\$1.15
7	....	\$0.90	\$1.13	\$1.35
8	....	\$0.97	\$1.22	\$1.45
9	....	\$1.00	\$1.36	\$1.64
10	....	\$1.21	\$1.51	\$1.81
11	....	\$1.33	\$1.66	\$2.00
12	....	\$1.45	\$1.81	\$2.17
13	....	\$1.58	\$1.97	\$2.36
14	....	\$1.69	\$2.12	\$2.55
15	....	\$1.81	\$2.27	\$2.72
16	....	\$1.94	\$2.43	\$2.91

**1 to 99 Feet . . . . . NET**  
**100 to 249 Feet . . . . . 10% OFF**  
**250 Foot Rolls or more of a size**  
**in one shipment . . . . . 10-10% OFF**



# "HIGH SPEED"

## RAW EDGE—HEAVY DUTY—HIGH SPEED—FLEXIBLE RUBBER BELTING

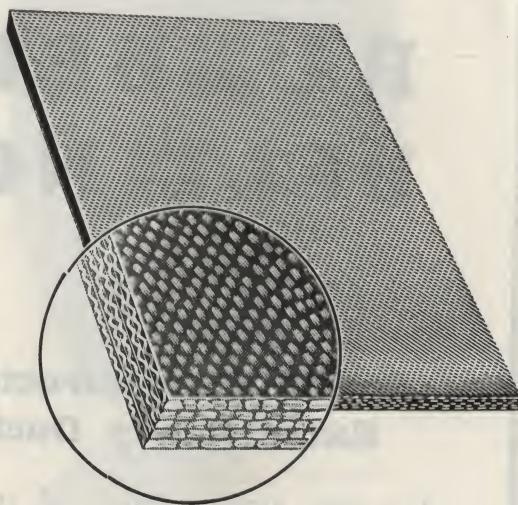
A strong, heavy duty belt that can be used on any installation including such severe work as main drives, rock crushers, paper mill machinery, etc. The body of the belt is built of heavy, hard, tight woven duck yet so flexible that minimum slippage is assured, even with small pulleys, because of the perfect contact between the belt and the pulley. The square, "Raw Edge," construction, without seams or folds in the fabric permits the belt to be run on either side and can be used with Lenix drives, pulley tighteners, etc. There is perfect adhesion between plies. This is a long life belt some of the features are: Stretch is reduced almost to the vanishing point; Bends freely ply on ply; No seams to open up; No ply separation; No bootlegging, that is no air pockets can develop. Not affected by atmospheric changes because the edges are covered with a layer of rubber.

### ★NET FOOT—CUT LENGTHS

Width Inches	4 Ply	5 Ply	6 Ply	7 Ply	8 Ply
2	\$0.35	....	....	....	....
3	\$0.50	....	....	....	....
4	\$0.63	\$0.79	....	....	....
5	\$0.79	\$0.99	....	....	....
6	\$0.94	\$1.18	\$1.41	....	....
8	\$1.19	\$1.49	\$1.78	....	....
10	....	\$1.85	\$2.22	....	....
12	....	....	\$2.66	\$3.10	\$3.54
14	....	....	\$3.11	\$3.63	\$4.14
16	....	....	\$3.56	\$4.16	\$4.74

1 to 99 Feet, Cut Lengths.....★NET  
100 to 249 Feet.....10% OFF  
250 Foot Rolls, or More of one Size in one  
Shipment.....10-10% OFF

**ENDLESS BELTS.** These belts can be built endless without step splices or cement joints. For endless belts up to 10 inches wide add the cost of fifteen extra feet. For widths 10 inches and over, add the cost of ten extra feet.



### DAILY SERVICE FOR MAKING RUBBER BELTS ENDLESS

**We are equipped to vulcanize and properly make all types of rubber belts endless saving you several days to two weeks time.**



This belt joint is a successful method of making rubber belts permanently endless. These joints will last as long as the belt, will not wear more than the belt itself and will not open up.

The ends of the plies are interlocked and countersunk beneath the surface of the belt, and are permanently vulcanized in this position. There is no stitching. The thickness of the belt is absolutely uniform throughout, and it remains so. The joint cannot open up, it remains strong throughout the life of the belt.

The ends of the belt are prepared in steps so that the steps on one end exactly fit the steps on the other end. The joint or the seam in the outside ply, however, does not appear on the surface of the belt, but is countersunk by the removal of part of the fabric in the second ply. The resulting depression is filled in with a reinforced rubber cushion, thus locking the seam into position where it is protected from wear, deterioration or windage.

Perfection of this joint is also insured by development of special cements and tie gums. The strength of the joint at the seam in a four ply belt is 75% of the total strength of the belt whereas a laced or metal joint is seldom over 40%. The small amount of fabric removed does not impair the efficiency of the belt since the total breakage strength of a belt is ten times the maximum tension to which it is subjected.

### ENDLESS BELT PRICES

Any type rubber belt can be made **ENDLESS** at our place of business, (outside work, prices on request), at the following prices:

For making a belt endless under 10 inches wide add the cost of fifteen extra feet.

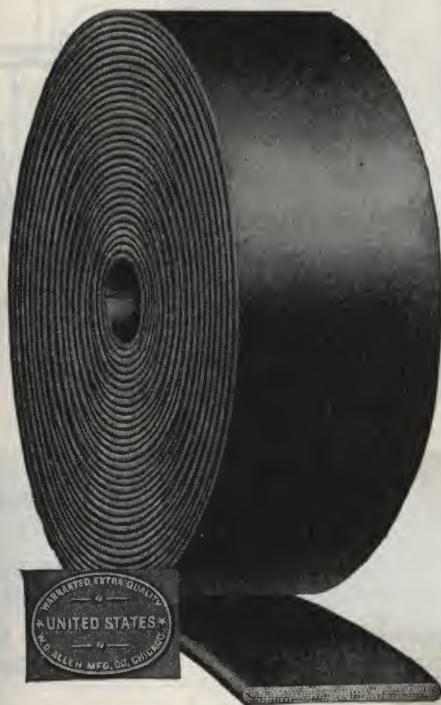
For making a belt endless in widths 10 inches and over, add the cost of ten extra feet.



# "UNITED STATES" BLUE FRICTION SURFACE RUBBER BELTING

Fig. No. 3386

A high grade Friction Surface Rubber Belt made of 28-ounce duck. 18 pound friction. Well balanced and recommended for general all around work where a good substantial belt is required. This is the belt with the blue friction surface and is one of the best values on the market. Guaranteed.



## ★ NET FOOT—CUT LENGTHS

Width, In.	3-Ply	4-Ply	5-Ply	6-Ply
1-1/2	\$0.16	....	....	....
2	\$0.21	\$0.24	....	....
2-1/2	\$0.25	\$0.30	....	....
3	\$0.29	\$0.34	....	....
3-1/2	\$0.34	\$0.40	....	....
4	....	\$0.43	....	....
4-1/2	\$0.41	\$0.49	....	....
5	\$0.46	\$0.54	\$0.68	....
6	\$0.55	\$0.65	\$0.81	\$0.97
7	....	\$0.76	\$0.95	\$1.14
8	....	\$0.82	\$1.02	\$1.22
10	....	\$1.02	\$1.27	\$1.53
12	....	\$1.22	\$1.53	\$1.83

1 to 99 Feet ..... **NET**  
 100 to 249 Feet ..... **10% OFF**  
 250 Foot Rolls or More of a Size in One  
 Shipment ..... **10-10% OFF**

# "YALE BRAND" RUBBER BELTING SMOOTH COVER

Fig. No. 422

An excellent belt for transmission. Will give very good service. It is not intended for extra heavy drives, but for ordinary work where a good belt is required. The YALE Belt is carefully made, and has a good, smooth rubber cover. Full 24 ounce duck, 18 Pound Friction.

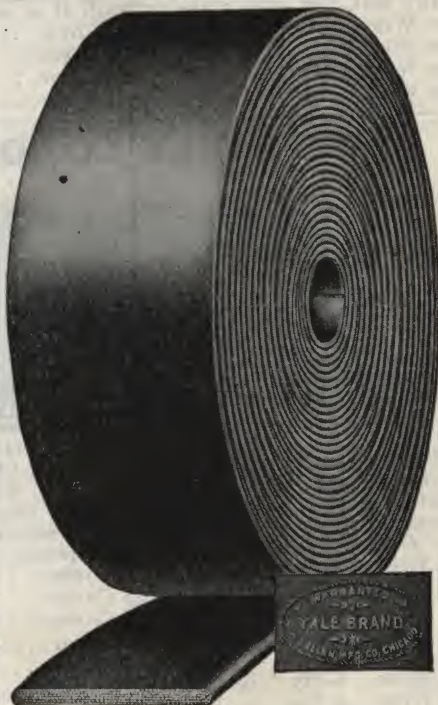
## REINFORCED SEAM

The seam is reinforced by a special pure gum strip underneath the lap, which gives added protection against opening up of the seam or plies.

## ★ NET FOOT—CUT LENGTHS

Width, In.	2-Ply	3-Ply	4-Ply
1	....	\$0.10	....
1-1/4	....	\$0.13	....
1-1/2	\$0.14	\$0.16	....
2	\$0.17	\$0.20	\$0.23
2-1/2	\$0.21	\$0.24	\$0.28
3	....	\$0.28	\$0.33
3-1/2	....	\$0.33	\$0.38
4	....	....	\$0.41
5	....	\$0.44	\$0.51
6	....	\$0.52	\$0.61
8	....	....	\$0.77

1 to 99 Feet ..... **NET**  
 100 to 249 Feet ..... **10% OFF**  
 250 Foot Rolls or More of a Size in One  
 Shipment ..... **10-10% OFF**





# ELEVATOR RUBBER BELTING

The exacting nature of elevator work requires a belt which must be of unusually high tensile strength. Our special elevator belting is especially designed for this service. The make-up of this belt is such that it will take care of the strain, and the friction or gum between the plies is extra high grade. This superior friction will prevent the plies from separating, thus insuring a long life and an exceedingly satisfactory belt for elevator work.

## ★ NET FOOT—CUT LENGTHS

Width, Inches	4-Ply	5-Ply
6	\$0.61	\$0.77
7	\$0.72	\$0.90
8	\$0.77	\$0.97
9	\$0.87	\$1.08
10	\$0.96	\$1.20
11	\$1.06	\$1.32
12	\$1.15	\$1.44
13	\$1.25	\$1.57
14	\$1.35	\$1.68
15	\$1.44	\$1.80
16	\$1.54	\$1.93
18	\$1.73	\$2.16
20	\$1.92	\$2.40

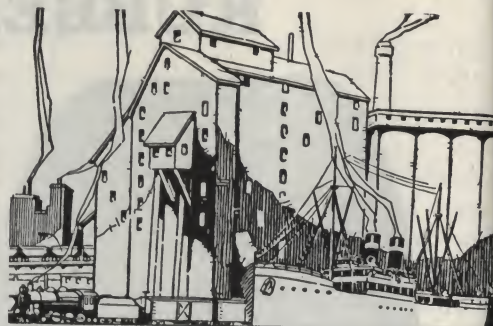


Fig. 429

1 to 99 FEET	★ NET
100 to 249 Feet	10% OFF
250 Foot Rolls or More of a Size in One Shipment	10-10% OFF

## ROAD BUILDING AND TRENCHING MACHINE CONVEYOR BELTS

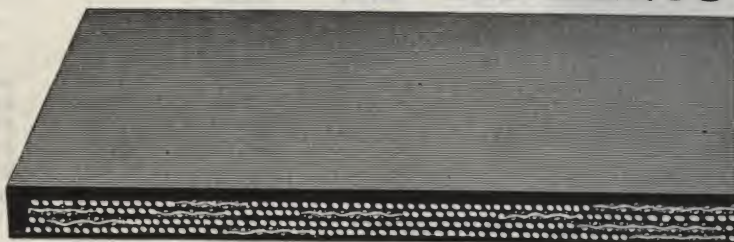


Fig. 4425

Sometimes known as a Grader Belt. For very hard and rough service in handling rock, dirt, sand, gravel and other materials. A particularly good quality for this work. Dependable. Strong. Economical in use. Cover is of excellent wear-resisting properties on the carrying side. Straight ply with no seams, which provides greater flexibility over the small pulleys. The edge is thoroughly tied into the body of the belt, the edge stays on until it is worn off and does not tear loose.

24 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$3.13
30 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$3.92
36 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$4.70
42 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$5.49

## PORTABLE LOADER CONVEYOR BELTS

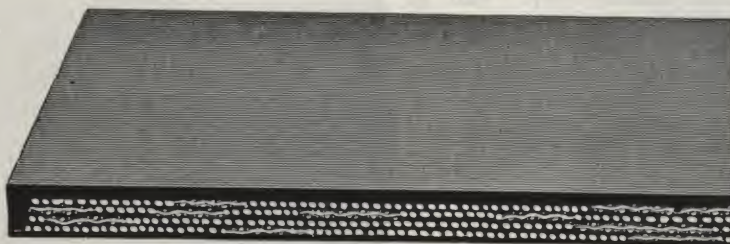


Fig. 4426

A quality and construction especially fitted to the service conditions of the portable loader for handling coal, sand, gravel and other materials. Will give long life. Economical. The cover is made of the highest wear-resisting compounds. The plies in the fabric have no seams which makes the belt stronger and flexible. Special edge construction keeps the covers intact, protecting the fabric from moisture. Other sizes can be furnished, prices on application.

12 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$1.52
12 Inches Wide. 4-Ply. $\frac{1}{8}$ Inch Top Cover	★ NET FOOT, \$1.72
16 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$2.02
16 Inches Wide. 4-Ply. $\frac{1}{8}$ Inch Top Cover	★ NET FOOT, \$2.30
18 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$2.07
18 Inches Wide. 4-Ply. $\frac{1}{8}$ Inch Top Cover	★ NET FOOT, \$2.35
24 Inches Wide. 4-Ply. $\frac{1}{16}$ Inch Top Cover	★ NET FOOT, \$2.76
24 Inches Wide. 4-Ply. $\frac{1}{8}$ Inch Top Cover	★ NET FOOT, \$3.13



# CONVEYOR BELTS

**With  
Wear-  
Resisting  
Top  
Cover**



**Straight  
Running!  
Pre-  
stretched!**

Fig. 3385

A special conveyor belt for handling various materials, packages, etc., in grain elevators, mills, factories, warehouses, sand and gravel plants, mining plants, coal handling systems, paper mills, steel mills, foundries, etc. Satisfactory. Economical. Belt runs true and straight. Belts will trough perfect without the load of material. Excess stretch is taken out of belt during the manufacturing process. Made straight-ply in the fabric. There are no seams, and no weaknesses. Belts have maximum tensile strength lengthwise and are at the same time flexible in passing over the end pulleys. A tie fabric is used to anchor the square edge cover to the body of the belt. A special duck is used giving greater strength in the lengthwise threads and more flexibility in the crosswise threads. The quality of the rubber cover, the frictions, and fabrics are proportioned to assure uniformity in the completed belt and guaranteed to earn their cost in tons handled. Standard belt is made with the back cover (pulley side) 1/32 inches thick. The top cover can be made in various thickness as follows:

## ★ NET PRICES PER FOOT

Width Inches	3 - PLY				4 - PLY				5 - PLY			6 - PLY		
	Top Cover, Inches				Top Cover, Inches				Top Cover, Inches			Top Cover, Inches		
	1/32	1/16	3/32	1/8	1/32	1/16	3/32	1/8	1/16	3/32	1/8	1/16	3/32	1/8
6	\$ .64	\$ .70	\$ .75	\$ .81	\$ .74	\$ .79	\$ .85	\$ .90	\$ .95	\$ 1.01	\$ 1.06	\$ 1.12	\$ 1.17	\$ 1.22
10	1.03	1.11	1.20	1.28	1.18	1.27	1.35	1.44	1.52	1.61	1.69	1.77	1.86	1.94
12	1.24	1.34	1.44	1.54	1.42	1.52	1.62	1.72	1.83	1.93	2.02	2.13	2.23	2.33
14	1.44	1.56	1.68	1.79	1.66	1.77	1.89	2.01	2.13	2.24	2.37	2.49	2.61	2.72
16	1.65	1.78	1.91	2.06	1.89	2.02	2.17	2.30	2.43	2.57	2.71	2.84	2.97	3.11
18	1.68	1.82	1.96	2.10	1.94	2.07	2.21	2.35	2.49	2.63	2.77	2.90	3.04	3.18
20	1.87	2.03	2.18	2.33	2.15	2.30	2.46	2.61	2.77	2.92	3.07	3.23	3.38	3.53
22	2.06	2.23	2.40	2.57	2.37	2.53	2.70	2.87	3.04	3.21	3.38	3.55	3.72	3.89
24	2.25	2.43	2.62	2.80	2.58	2.76	2.95	3.13	3.32	3.50	3.69	3.87	4.06	4.24
30	2.81	3.04	3.27	3.50	3.23	3.46	3.69	3.92	4.15	4.38	4.61	4.84	5.07	5.30
36	3.37	3.65	3.92	4.20	3.87	4.15	4.42	4.70	4.98	5.26	5.53	5.81	6.08	6.36
42	3.93	4.25	4.58	4.90	4.52	4.84	5.16	5.49	5.81	6.13	6.46	6.77	7.10	7.42
48	4.49	4.86	5.23	5.60	5.16	5.53	5.90	6.27	6.64	7.01	7.38	7.74	8.11	8.48

**DISCOUNTS** { 1 to 49 FEET ..... **NET**  
 50 to 99 FEET ..... **10% OFF**  
 100 FEET or MORE ..... **10-10% OFF**

Prices on sizes not listed furnished on application. Prices on request for additional thickness on the pulley side.

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# "R.F.&C." BELTING

## Rubber Filled and Covered

- 1 SOLID WOVEN CARCASS—No plies to separate. No seams to split.
- 2 RUBBER FILLED—Thoroughly impregnated to resist atmospheric conditions.
- 3 RUBBER COVERED—Standard or Padded for Conveyor work.

For factories, canneries, brick makers, oil wells, cement plants, sand and gravel pits, mines. Construction prevents separation of plies and splitting of seams. Standard rubber cover. Has minimum stretch, extreme flexibility and good pulley adhesion, which assures efficient power transmission. Perfect troughing in conveyor service. A heavier ply belt may be used over the same diameter pulley. May be run either face to pulley.

1

2

3



Fig. No. 3226

### LIST PRICES PER FOOT

In.	2-Ply	3-Ply	4-Ply	5-Ply	6-Ply	7-Ply	8-Ply	In.	4-Ply	5-Ply	6-Ply	7-Ply	8-Ply
1	\$0.18	\$0.20	\$0.24	.....	.....	.....	.....	11	\$2.11	\$2.64	\$3.17	\$3.69	\$4.22
1 1/4	.23	.26	.30	.....	.....	.....	.....	12	2.30	2.88	3.45	4.03	4.60
1 1/2	.27	.31	.36	\$0.45	.....	.....	.....	13	2.50	3.13	3.75	4.38	5.00
1 3/4	.32	.36	.42	.53	.....	.....	.....	14	2.69	3.36	4.04	4.71	5.38
2	.34	.39	.46	.58	\$0.69	.....	.....	15	2.88	3.60	4.32	5.04	5.76
2 1/2	.42	.48	.56	.70	.84	.....	.....	16	3.08	3.86	4.62	5.40	6.16
3	.48	.55	.65	.81	.98	.....	.....	18	3.46	4.32	5.20	6.06	6.92
3 1/2	.57	.65	.76	.95	1.14	.....	.....	20	3.84	4.80	5.76	6.72	7.68
4	.61	.70	.82	1.03	1.23	\$1.44	.....	22	4.22	5.28	6.34	7.38	8.44
4 1/2	.....	.78	.92	1.15	1.38	1.61	.....	24	4.60	5.76	6.90	8.06	9.20
5	.....	.87	1.02	1.28	1.53	1.79	.....	26	.....	6.26	7.50	8.76	10.00
6	.....	1.04	1.22	1.53	1.83	2.14	\$2.44	28	.....	6.72	8.08	9.42	10.76
7	.....	1.22	1.43	1.79	2.15	2.50	2.86	30	.....	7.20	8.64	10.08	11.52
8	.....	1.31	1.54	1.93	2.31	2.70	3.08	32	.....	7.72	9.24	10.80	12.32
9	.....	.....	1.73	2.16	2.60	3.03	3.46	34	.....	8.18	9.82	11.46	13.08
10	.....	.....	1.92	2.40	2.88	3.36	3.84	36	.....	8.64	10.40	12.12	13.84

### DISCOUNT

Cut Lengths, 1 to 99 Feet ..... 50% OFF  
100 to 249 Feet ..... 50-10% OFF  
250 Foot Rolls, One Size, One Shipment ..... 50-10-10% OFF

## "WHITE TOP"

### White Cover Canners' Belt



Specially designed for handling fruits, vegetables, meats, canned and bottled goods, and other products in canning and food factories. The sanitary top cover of pure white rubber provides a surface easily kept clean. A belt of high quality and superior construction, designed to give the maximum of satisfactory service.

Made to Order Only. Prices Furnished on Receipt of Full Data and Specifications.



# GENUINE BALATA BELTING

For Use Where  
There Is Excessive  
Moisture

## LIST PRICES PER FOOT

Width Ins.	3-Ply	4-Ply	5-Ply	6-Ply
1	\$0.18	\$0.24	\$0.30	....
1 ¼	.23	.30	.38	....
1 ½	.27	.36	.45	....
1 ¾	.32	.42	.53	\$0.63
2	.36	.48	.60	.72
2 ½	.45	.60	.75	.90
3	.54	.72	.90	1.08
3 ½	.63	.84	1.05	1.26
4	.72	.96	1.20	1.44
4 ½	.81	1.08	1.35	1.62
5	.90	1.20	1.50	1.80
6	1.08	1.44	1.80	2.16
7	1.26	1.68	2.10	2.52
8	1.44	1.92	2.40	2.88
9	1.62	2.16	2.70	3.24
10	1.80	2.40	3.00	3.60
11	1.98	2.64	3.30	3.96
12	2.16	2.88	3.60	4.32
13	....	....	3.90	4.68
14	....	....	4.20	5.04
15	....	....	4.50	5.40
16	....	....	4.80	5.76
18	....	....	5.40	6.48
20	....	....	6.00	7.20
22	....	....	6.60	7.92
24	....	....	7.20	8.64

Balata is a fabric belt similar to rubber belting, except that the binding gum is Balata, which differs from the gum used in rubber belting, in that it cannot be mixed with other ingredients or vulcanized, so that only the pure gum can be used.



Fig. 2855

The Balata gum is forced into the fabric until thoroughly saturated, which makes a belt absolutely impervious to water.

The duck used is of a very high grade and possesses great tensile strength. The belt is uniform in thickness and texture and has great gripping qualities, hugging the pulley closely, and allows practically no slipping.

Balata belting should not be used where the temperature rises to over 100 or 110 degrees F., nor should it be used on cross drives.

**Cut Lengths, 1 to 99 Feet.....45% OFF**  
**100 to 249 Feet..... 45-10% OFF**  
**250 Foot Rolls of one size in one shipment.....45-10-10% OFF**

## Solid Woven White Cotton Belting

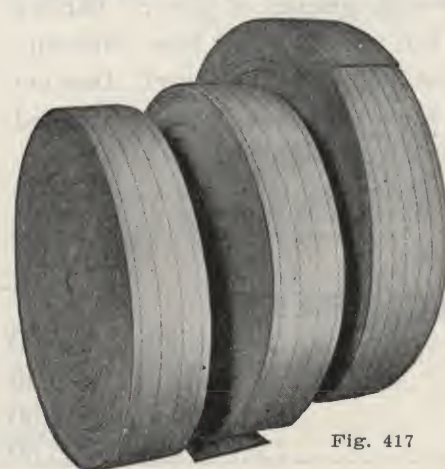


Fig. 417

Used in flour and feed mills, by elevators and manufacturers for light conveying or elevating. Most economical in first cost and also in final cost. Flexible, strong and eliminates the possibility of ply separation. Highest type, most firmly woven and truest running belt of its kind. Quality, weight and strength are essential qualities maintained in construction.

Width Ins.	2-Ply	3-Ply	4-Ply	5-Ply	6-Ply	8-Ply	10-Ply
1"	.08	.12	.18	.22	.27	.....	.....
1 ¼"	.09	.13	.20	.25	.30	.....	.....
1 ½"	.10	.15	.22	.27	.33	.45	.....
1 ¾"	.11	.17	.24	.30	.36	.48	.....
2"	.12	.18	.26	.32	.39	.50	.60
2 ½"	.15	.22	.30	.37	.47	.62	.....
3"	.18	.26	.34	.42	.53	.71	.....
3 ½"	.20	.29	.39	.50	.61	.82	.....
4"	.23	.32	.43	.56	.67	.90	.....
4 ½"	.26	.36	.48	.63	.77	1.05	.....
5"	.28	.40	.53	.69	.84	1.15	.....
6"	.33	.47	.63	.81	1.00	1.33	.....
7"	.40	.58	.74	.96	1.20	1.60	.....
8"	.44	.64	.84	1.08	1.35	1.80	.....
9"	.55	.78	1.00	1.30	1.60	2.20	.....
10"	.60	.85	1.10	1.45	1.75	2.50	3.15
12"	.68	.97	1.27	1.70	2.06	2.90	3.65
14"	.84	1.18	1.53	1.98	2.40	3.40	4.25
16"	.96	1.35	1.75	2.25	2.70	3.90	4.90
18"	1.08	1.53	1.98	2.52	3.05	4.35	5.45
20"	1.20	1.70	2.20	2.85	3.40	4.90	6.15
22"	1.30	1.85	2.44	3.20	3.85	5.45	6.85
24"	1.40	2.00	2.64	3.40	4.10	6.00	7.50
26"	1.55	2.30	2.87	3.90	4.60	6.65	8.35
28"	1.70	2.50	3.15	4.15	5.00	7.10	8.90
30"	1.80	2.65	3.45	4.40	5.40	7.50	9.40
32"	2.00	2.95	3.80	4.85	6.00	8.25	10.35
36"	2.15	3.20	4.30	5.50	6.65	9.00	11.25
40"	2.50	3.60	4.75	6.20	7.45	10.50	13.15
42"	2.65	3.80	5.00	6.50	7.75	11.00	13.75
44"	2.85	4.10	5.25	6.90	8.20	11.90	14.90
48"	3.00	4.30	5.70	7.40	8.85	13.00	16.25

**DISCOUNT—Cut Lengths, 1 to 99 Feet..... 55% OFF**  
**100 to 249 Feet..... 55-10% OFF**  
**250 Foot Rolls of one size in one shipment..... 55-10-10% OFF**



# ALLEN'S HARVEST KING RUBBER FRICTION SURFACE TRACTOR AND THRESHER ENDLESS BELT

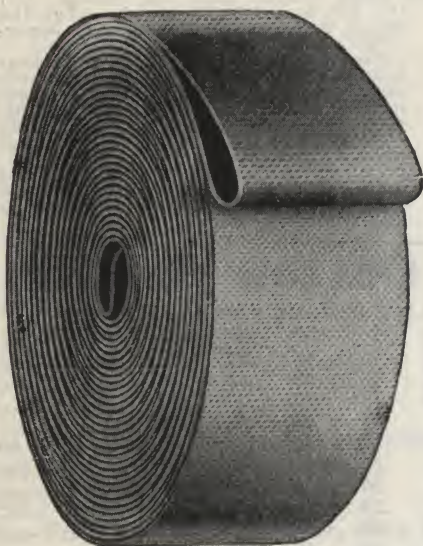
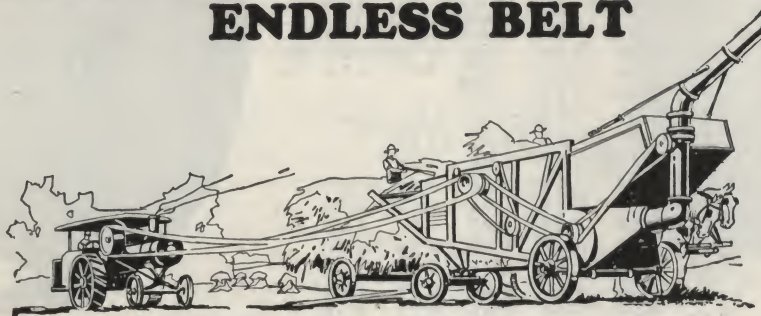


Fig. No. 3240

## GUARANTEED

High grade. For all types of tractors and thresher drives. Laps are stitched and guaranteed not to come apart. Belt is flexible and will hug the pulleys closely and transmit the greatest possible amount of power. Barring abuse, this belt will last a long time. Non-slipping. Non-stretching. Waterproof. Does not have to be broken in. Materials that are used make this belt a remarkable value.

*Allen's "Harvest King" Belt is vulcanized endless at the factory. The actual length is three feet less than the labeled length; for example, 125 feet list length is actually 122 feet long.*

### LIST PRICES EACH BELT

50 feet x 6 inches, 4-ply.....	List Each,	\$64.50
60 feet x 6 inches, 4-ply.....	List Each,	\$76.50
75 feet x 6 inches, 4-ply.....	List Each,	\$95.00
100 feet x 6 inches, 4-ply.....	List Each,	\$125.50
50 feet x 7 inches, 4-ply.....	List Each,	\$75.50
75 feet x 7 inches, 4-ply.....	List Each,	\$111.50
100 feet x 7 inches, 4-ply.....	List Each,	\$147.00
125 feet x 7 inches, 4-ply.....	List Each,	\$183.00
50 feet x 8 inches, 4-ply.....	List Each,	\$81.50
75 feet x 8 inches, 4-ply.....	List Each,	\$120.50
100 feet x 8 inches, 4-ply.....	List Each,	\$158.50
125 feet x 8 inches, 4-ply.....	List Each,	\$197.00
150 feet x 8 inches, 4-ply.....	List Each,	\$235.50

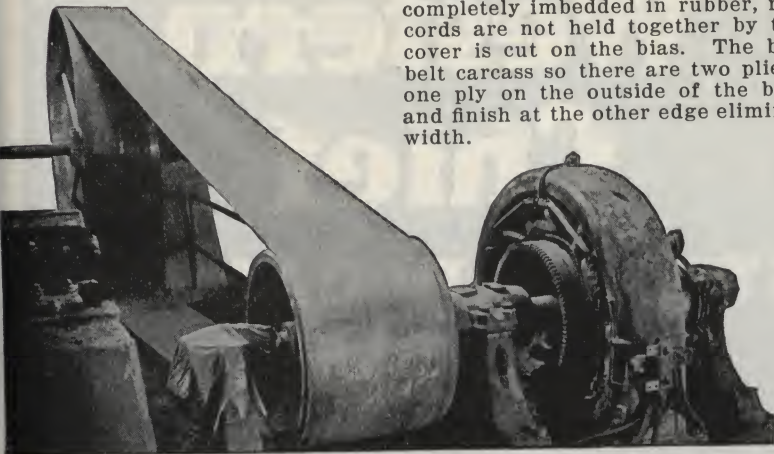
**DISCOUNTS.....ON REQUEST**



**HAMMERMILL CORD ENDLESS RUBBER BELTS**

**Will Operate Over Very Small Pulleys at Very High Speeds  
No Stretch—No Ply Separation—Ideal For Hammer Mills**

Multicord belts consist of: Multiple cords of small diameter each completely imbedded in rubber, running lengthwise of the belt. The cords are not held together by transverse threads. A woven fabric cover is cut on the bias. The bias cover is folded around the cord belt carcass so there are two plies on the pulley side of the belt and one ply on the outside of the belt. Folded plies start at one edge and finish at the other edge eliminating longitudinal seams in the belt width.



Three weights, light, medium and heavy, 10 feet or longer. Made **ENDLESS ONLY** with the "loop" method. **SPECIFY** the exact steel tape measurement around pulleys with idler in normal position. Allowance for stretch is made. State whether drive is horizontal or vertical, or give approximate angle from horizontal. Submit sketch showing pulley diameters, minimum distance center to center, position of idlers if any, and amount of take up.

**PRICES ON REQUEST**

**'AGRICULTURAL'  
RED FRICTION SURFACE  
RUBBER BELTING**

Agricultural Red Friction Surface Rubber Belt is very carefully constructed of high quality materials. For all around transmission purposes. Will give you satisfactory service. **QUALITY GUARANTEED!**

**LIST EACH FOOT**

Size Inches	3-Ply	4-Ply
1	\$0.20	....
1-1/4	\$0.26	....
1-1/2	\$0.31	....
2	\$0.39	\$0.46
2-1/2	\$0.48	\$0.56
3	\$0.55	\$0.65
3-1/2	\$0.65	\$0.76
4	\$0.70	\$0.82
4-1/2	....	\$0.92
5	....	\$1.02
6	....	\$1.22
7	....	\$1.43
8	....	\$1.54

**DISCOUNT ..... ON REQUEST**



Fig. 4476

**HARVESTER AND APRON BINDER WEBBING**

**HARVESTER WEBBING**

Fig. 4800

3-ply thickness firmly woven to give maximum service on binder aprons on harvesting machines. These sizes will take care of any binder now in general use. In rolls of 100 feet.

Inch	
1-1/16	★ NET 100 FEET, \$2.85
1-1/8	★ NET 100 FEET, \$3.00
1-1/4	★ NET 100 FEET, \$3.45
1-1/2	★ NET 100 FEET, \$3.65
2	★ NET 100 FEET, \$4.65



In addition to the webbing listed we can furnish any type of webbing, please send a sample if possible together with size and quantity.

**APRON BINDER WEBBING**

Fig. 4801

Regulation thickness webbing firmly woven which insures best results in reinforcing and repairing torn binder aprons. In rolls of 100 feet.

Inch	
2	★ NET 100 FEET, \$2.15
2-1/2	★ NET 100 FEET, \$2.45
3	★ NET 100 FEET, \$2.90
3-1/2	★ NET 100 FEET, \$3.15
4	★ NET 100 FEET, \$3.60





# Western Chief<sup>★</sup>

## STITCHED CANVAS BELTING

Satisfaction is built into every foot of "Western Chief"! Only the highest grade long staple cotton is used in the yarns from which the duck is woven, producing a fabric of remarkable tensile strength. Every step in the process of laying plies and sewing belts is carried out under rigid inspection. Edges and laps are double stitched. "Western Chief" belting is stretched so as to maintain the proper tension and yet retain the full elasticity of the cotton. Carefully treated and seasoned.

### "WESTERN CHIEF" GUARANTEE

Belts should be run in the center of the pulley and should not be held in place by any object that will injure or break the edges. Results of overloading, injurious use Belt Dressings, or chafed, frayed or nicked edges do not constitute defects.

Positively no allowance unless claims are made within 30 days from date put in use and belt returned to maker, freight prepaid, with the guarantee tag attached. We will replace any belt proving defective in material or workmanship.

### LIST PRICE [Western Chief Straight Roll Belting]

New List Effective October 1st, 1929

Width, Inches	3 Ply	4 Ply	5 Ply	6 Ply	8 Ply	Width, Inches	4 Ply	5 Ply	6 Ply	8 Ply
1		\$ .20				15	\$2.78	\$ 3.47	\$ 4.16	\$ 5.55
1½	\$ .25	.30	\$ .38			16	2.96	3.70	4.44	5.92
2	.32	.39	.49	\$ .59		18	3.33	4.16	5.00	6.66
2½	.40	.49	.61	.73		20	3.80	4.75	5.70	7.60
3	.47	.57	.71	.86		22	4.18	5.23	6.27	8.36
3½	.55	.66	.83	1.00		24	4.56	5.70	6.84	9.12
4	.62	.74	.93	1.11	\$1.48	26	4.97	6.22	7.46	9.95
4½		.84	1.04	1.22	1.68	28	5.36	6.69	8.03	10.71
5		.93	1.16	1.39	1.86	30	5.73	7.17	8.61	11.48
6		1.08	1.35	1.62	2.16	32	6.12	7.65	9.18	12.24
7		1.26	1.58	1.89	2.52	34	6.50	8.13	9.75	13.01
8		1.44	1.80	2.16	2.88	36	6.88	8.61	10.33	13.77
9		1.62	2.03	2.43	3.24	38	7.26	9.08	10.90	14.54
10		1.80	2.25	2.70	3.60	40	7.65	9.56	11.47	15.30
11		1.98	2.48	2.97	3.96	42	8.03	10.04	12.05	16.07
12		2.16	2.70	3.24	4.32	44	8.41	10.52	12.62	16.83
13		2.41	3.01	3.61	4.81	46	8.79	11.00	13.20	17.60
14		2.59	3.24	3.89	5.18	48	9.18	11.48	13.77	18.36

Sizes not listed take the nearest higher size

Sizes not listed take the nearest higher size

Charge for splice on endless belts under 12 inches in width, all plies, 6 feet additional; 12 inches and over in width, all plies, 8 feet additional

**Discount, Cut Lengths, 1 to 99 Feet..... 55% OFF**  
**100 to 249 Feet..... 55-10% OFF**  
**250 Foot Rolls in one size and one shipment. 55-10-10% OFF**



# BLACK PILOT

## BLACK STITCHED STRAIGHT ROLL

# CANVAS BELTING

A superior quality belting for special work, which will withstand considerable heat. "Black Pilot" is made of heavy duck with great tensile strength. Carefully laid and stitched, thoroughly treated and seasoned, to insure long and satisfactory service. The buyer who wants something better than the ordinary stitched canvas belting, will find "Black Pilot" meets the most exacting requirements.

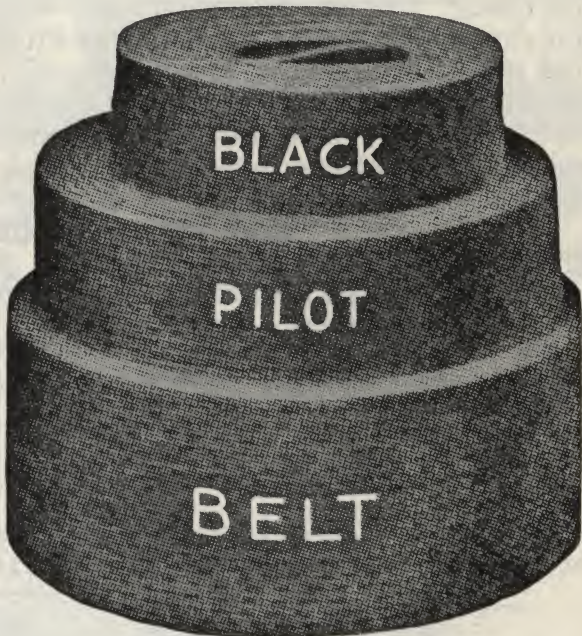


Fig. 2891

### NEW LIST PRICES

Effective October 1st, 1929

Width Inches	4 Ply	5 Ply	6 Ply	8 Ply	10 Ply	Width Inches	4 Ply	5 Ply	6 Ply	8 Ply	10 Ply
1	\$0.20	....	....	....	....	15	\$2.78	\$3.47	\$4.16	\$5.55	\$6.94
1 ½	.30	\$0.38	....	....	....	16	2.96	3.70	4.44	5.92	7.40
2	.39	.49	\$0.59	....	....	18	3.33	4.16	5.00	6.66	8.33
2 ½	.49	.61	.73	....	....	20	3.80	4.75	5.70	7.60	9.50
3	.57	.71	.86	....	....	22	4.18	5.23	6.27	8.36	10.45
3 ½	.66	.83	1.00	....	....	24	4.56	5.70	6.84	9.12	11.40
4	.74	.93	1.11	\$1.48	....	26	4.97	6.22	7.46	9.95	12.43
4 ½	.84	1.04	1.22	1.68	....	28	5.36	6.69	8.03	10.71	13.39
5	.93	1.16	1.39	1.86	....	30	5.73	7.17	8.61	11.48	14.34
6	1.08	1.35	1.62	2.16	....	32	6.12	7.65	9.18	12.24	15.30
7	1.26	1.58	1.89	2.52	....	34	6.50	8.13	9.75	12.77	16.26
8	1.44	1.80	2.16	2.88	....	36	6.88	8.61	10.33	13.01	17.21
9	1.62	2.03	2.43	3.24	....	38	7.26	9.08	10.90	14.54	18.17
10	1.80	2.25	2.70	3.60	\$4.50	40	7.65	9.56	11.47	15.30	19.13
11	1.98	2.48	2.97	3.96	4.95	42	8.03	10.04	12.05	16.07	20.08
12	2.16	2.70	3.24	4.32	5.40	44	8.41	10.52	12.62	16.83	21.04
13	2.41	3.01	3.61	4.81	6.01	46	8.79	11.00	13.20	17.60	21.99
14	2.59	3.24	3.89	5.18	6.48	48	9.18	11.48	13.77	18.36	22.95

Sizes not listed take the nearest higher size.

DISCOUNT

Cut Lengths, 1 to 99 Feet... 55% OFF

100 to 249 Feet..... 55-10% OFF

250 Foot Rolls of one size

in one shipment... 55-10-10% OFF



# WESTERN CHIEF

## GUARANTEED STITCHED CANVAS

# ENDLESS BELTS

### DEPENDABILITY!

The outstanding quality of these "Western Chief" Endless Belts! That's why you can count on repeat sales year after year to satisfied buyers. It takes superior materials and years of belt making experience to make "Western Chief" so strong and so serviceable, and that makes friends and profits for you.

### "WESTERN CHIEF" GUARANTEE

Belts should be run in the center of the pulley and should not be held in place by any object that will injure or break the edges.

Results of overloading, injurious use Belt Dressing, or chafed, frayed or nicked edges do not constitute defects.

Positively no allowance unless claims are made within 30 days from date put in use and belt returned to maker, freight prepaid, with the guarantee tag attached.

We will replace any belt proving defective in material or workmanship.

### LIST PRICES EACH BELT

#### 4-PLY

50 feet x 5 inches..	\$49.50
75 feet x 5 inches..	\$72.50
100 feet x 5 inches..	\$96.00
50 feet x 6 inches..	\$57.50
60 feet x 6 inches..	\$68.00
75 feet x 6 inches..	\$84.50
100 feet x 6 inches..	\$111.50
125 feet x 6 inches..	\$138.50
50 feet x 7 inches..	\$67.00
75 feet x 7 inches..	\$98.50
100 feet x 7 inches..	\$130.00

#### 4-PLY

125 feet x 7 inches..	\$161.50
150 feet x 7 inches..	\$193.00
50 feet x 8 inches..	\$76.50
75 feet x 8 inches..	\$112.50
100 feet x 8 inches..	\$148.50
125 feet x 8 inches..	\$184.50
150 feet x 8 inches..	\$220.50
150 feet x 9 inches..	\$248.00

#### 5-PLY

125 feet x 7 inches..	\$202.50
150 feet x 7 inches..	\$242.00

#### 5-PLY

125 feet x 8 inches..	\$230.50
150 feet x 8 inches..	\$275.50
160 feet x 8 inches..	\$293.50
150 feet x 9 inches..	\$311.00
160 feet x 9 inches..	\$331.00

#### 6-PLY

150 feet x 8 ins...	\$330.50
160 feet x 8 ins...	\$352.00
150 feet x 9 ins...	\$372.00
160 feet x 9 ins...	\$396.00

"Western Chief"  
Trade Mark  
Registered  
U. S. Pat. Off.



**GUARANTEED  
AND  
DEPENDABLE**



**DISCOUNTS..... ON REQUEST**



# **"BLACK PILOT"**

## **BLACK STITCHED**

## **CANVAS BELTING**

### **ENDLESS THRESHER AND TRACTOR BELTS**

Fig. 2891E

Meets the most exacting requirements for Thresher and Tractor work. Made of heavy duck with great tensile strength. Carefully laid and stitched, thoroughly treated and seasoned, to insure long and satisfactory service.

#### **LIST PRICES EACH BELT**

##### **4-PLY**

50 feet x 5 inches....	<b>\$49.50</b>
75 feet x 5 inches....	<b>\$72.50</b>
100 feet x 5 inches....	<b>\$96.00</b>
50 feet x 6 inches....	<b>\$57.50</b>
60 feet x 6 inches....	<b>\$68.00</b>
75 feet x 6 inches....	<b>\$84.50</b>
100 feet x 6 inches..	<b>\$111.50</b>
125 feet x 6 inches..	<b>\$138.50</b>
50 feet x 7 inches..	<b>\$ 67.00</b>
75 feet x 7 inches..	<b>\$ 98.50</b>
100 feet x 7 inches..	<b>\$130.00</b>
125 feet x 7 inches..	<b>\$161.50</b>
150 feet x 7 inches..	<b>\$193.00</b>
50 feet x 8 inches..	<b>\$ 76.50</b>
75 feet x 8 inches..	<b>\$112.50</b>
100 feet x 8 inches..	<b>\$148.50</b>
125 feet x 8 inches..	<b>\$184.50</b>

##### **4-PLY**

150 feet x 8 inches..	<b>\$220.50</b>
150 feet x 9 inches..	<b>\$248.00</b>

##### **5-PLY**

125 feet x 7 inches..	<b>\$202.50</b>
150 feet x 7 inches..	<b>\$242.00</b>
125 feet x 8 inches..	<b>\$230.50</b>
150 feet x 8 inches..	<b>\$275.50</b>
160 feet x 8 inches..	<b>\$293.50</b>
150 feet x 9 inches..	<b>\$311.00</b>
160 feet x 9 inches..	<b>\$331.00</b>

##### **6-PLY**

150 feet x 8 inches..	<b>\$330.50</b>
160 feet x 8 inches..	<b>\$352.00</b>
150 feet x 9 inches..	<b>\$372.00</b>
160 feet x 9 inches..	<b>\$396.00</b>

**DISCOUNTS** ..... **ON REQUEST**

**W. D. ALLEN MANUFACTURING COMPANY, CHICAGO**



# "MIKADO"

## YELLOW SOLID FABRIC

# BELTING

### "No Plies To Separate"

For a thousand and one uses on the farm and in the shop, for operating cream separators, churns, engine governors, cordwood saws, small buffing and grinding wheels, etc., MIKADO IS THE BELT.

MIKADO is a solid woven fabric belting, made of long staple cotton and treated by a special process with a compound of our own formula. This treatment not only renders it waterproof, but greatly increases its tensile strength and thus adds to its durability.

For many kinds of light and medium drives it will give wonderful results with a minimum investment. It is extremely flexible and hugs the pulleys closely, thus transmitting maximum power without loss due to slippage.

Not intended to displace high grade rubber or cotton stitched belting because of its very nature it is limited to certain classes of service, but for the work it is intended it is without equal. The results it gives under unfavorable conditions are sometimes remarkable.



Fig. 2488

#### ★ NET PER 100 FEET

Width Inches	2 Ply	3 Ply	4 Ply	5 Ply	6 Ply
1	\$4.00	\$6.00	.....	.....	.....
1-1/4	....	\$6.50	.....	.....	.....
1-1/2	....	\$7.50	.....	.....	.....
2	....	\$9.00	\$13.00	.....	.....
2-1/2	....	\$11.00	\$15.00	.....	.....
3	....	\$13.00	\$17.00	\$21.00	\$26.50
3-1/2	....	\$14.50	\$19.50	\$25.00	\$30.50
4	....	\$16.00	\$21.50	\$28.00	\$33.50
4-1/2	....	\$18.00	\$24.00	\$31.50	\$38.50
5	....	.....	\$26.50	\$34.50	\$42.00
6	....	.....	\$31.50	\$40.50	\$50.00
7	....	.....	\$37.00	\$48.00	\$60.00
8	....	.....	\$42.00	\$54.00	\$67.50
9	....	.....	\$50.00	\$65.00	\$80.00
10	....	.....	\$55.00	\$72.50	\$87.50
12	....	.....	\$63.50	\$85.00	\$103.00

250 FOOT ROLLS of one size, in one shipment, DEDUCT 10% from the above prices.



Fig. 2499

**Strong and Dependable for Light Transmission**

Being solidly woven, "Black Knight" has all the structural advantages that this type of belting possesses. In addition our distinctive chemical treatment makes "Black Knight" not only practically impervious to moisture, but also preserves its uniformity and flexibility in trying temperature variations. This process strengthens the texture of the belting and prolongs its life by retarding the deteriorating effects of age. Because "Black Knight" operates with the minimum of slippage, it is the logical belting both for light farm drives and for pulley covering or lagging. Its economical first cost is an additional advantage worth your consideration.

# "BLACK KNIGHT"

## IMPERMEABLE BLACK

## SOLID FABRIC BELTING

"Black Knight" Waterproof fabric belting is a most dependable belting for light transmission purposes. In tensile strength, durability and waterproof qualities—three important features of fabric belting—"Black Knight" sets a new standard in its class.

#### ★ NET PER 100 FEET

Width Inches	2 Ply	3 Ply	4 Ply	5 Ply	6 Ply
1	\$4.00	\$6.00	.....	.....	.....
1-1/4	....	\$6.50	.....	.....	.....
1-1/2	....	\$7.50	.....	.....	.....
2	....	\$9.00	\$13.00	.....	.....
2-1/2	....	\$11.00	\$15.00	.....	.....
3	....	\$13.00	\$17.00	\$21.00	\$26.50
3-1/2	....	\$14.50	\$19.50	\$25.00	\$30.50
4	....	\$16.00	\$21.50	\$28.00	\$33.50
4-1/2	....	\$18.00	\$24.00	\$31.50	\$38.50
5	....	.....	\$26.50	\$34.50	\$42.00
6	....	.....	\$31.50	\$40.50	\$50.00
7	....	.....	\$37.00	\$48.00	\$60.00
8	....	.....	\$42.00	\$54.00	\$67.50
9	....	.....	\$50.00	\$65.00	\$80.00
10	....	.....	\$55.00	\$72.50	\$87.50
12	....	.....	\$63.50	\$85.00	\$103.00

250 FOOT ROLLS of one size, in one shipment, DEDUCT 10% from the above prices.



# MAGIC BAR BELT DRESSING



Fig. 2359

## FOR ALL KINDS OF BELTING

Magic Bar Belt Dressing is a tonic for all kinds of belting, it makes weak belts strong and prolongs the life of new belts. It absolutely prevents slipping and when it is used the belt may be run slack, allowing a greater contact to the pulleys and thus transmitting more power. Guaranteed to contain nothing injurious to any kind of belting.

## EASILY AND QUICKLY APPLIED

This is one of our own products, is made in convenient bar form and is applied to the running belt which takes off just enough of the dressing.

★ **NET EACH BAR, 35c**

## IDEAL SEMI-LIQUID BELT DRESSING INCREASES PULLING POWER

A strictly modern and up-to-date belt dressing, of our own exclusive manufacture, suitable for leather, rubber, canvas stitched and woven cotton belts. This is a preparation that will keep the belt soft and pliable and yet has a wonderful gripping power. Increases the pulling power and prevents slipping. Being the consistency of a thick syrup, Ideal dressing is easily applied to the belt by pouring a small portion on the belt when it is in motion, thus distributing it very quickly and easily.

1 PINT CANS

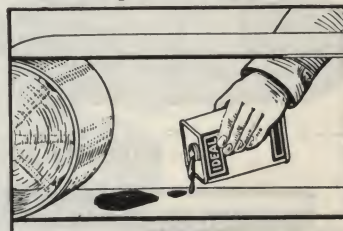
**30c**

★ Net Each Can

1 QUART CANS  
★ NET EACH CAN **50c**

1 GALLON CANS  
★ NET EACH CAN **\$1.90**

## Easy to Apply



**Just Pour It On**

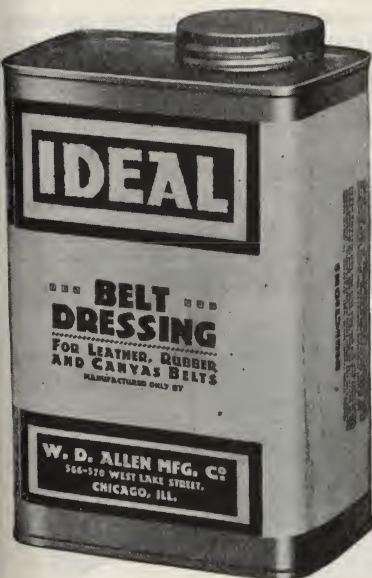


Fig. No. 2360

## PEASE PASTE BELT DRESSING



Fig. No. 378

Our own exclusive preparation, a combination agent which not only preserves belting but prevents slipping. Pease Belt Dressing is in paste form and can be used on leather, rubber, stitched cotton or rawhide belting. It is absolutely guaranteed to contain no rosin, nor any ingredient injurious to any kind of belting.

Can Size	★ NET POUND
2 Pound .....	\$0.35
5 Pound .....	\$0.30
10 Pound .....	\$0.30
20 Pound .....	\$0.30

## AJAX BELT OIL For Leather Belting Only

Ajax Belt Oil is a special preparation for leather belting which we perfected after considerable experiment. It has been on the market for several years and users say it is the best dressing for leather belts they ever used. It makes the belt pliable, producing better adhesion to the pulleys and consequently better transmission of power. Helps the belt to resist the action of moisture and prevents it from becoming hard and cracked. Furnished in 1, 2 and 5 gallon cans.

★ NET GALLON, \$1.50



Fig. No. 300

## "CLING-SURFACE" BELT PRESERVATIVE

Fig. No. 2889

A liquid preservative treatment for all kinds of belts or ropes. Penetrates into leather or canvas belts, keeping them pliable and reducing slippage.

1 Gallon Can .....	★ NET GALLON, \$4.00
3 Gallon Drum .....	★ NET GALLON, \$3.90
6 Gallon Drum .....	★ NET GALLON, \$3.75



## AJAX LEATHER BELT CEMENT

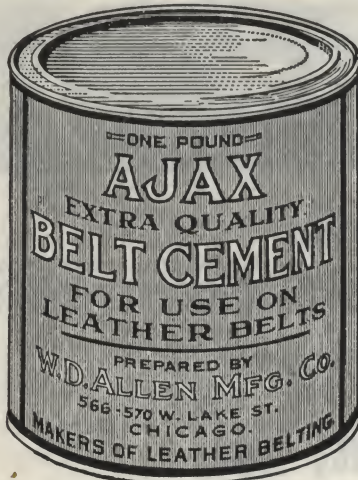


Fig. No. 298

Made in our own belt factory from the best of hide glue. This is the same cement we use in making our leather belting. Ajax Belt Cement is unreservedly guaranteed to give entire satisfaction when used according to directions which are printed on each can. Do not use on belts which are to be used in damp places.

★ NET POUND

**\$0.75**

## OTTER WATERPROOF BELT CEMENT



Fig. No. 298A

One of our own products. Used to join the laps of our Otter Waterproof Leather Belt. When applied according to directions it will hold under the severest conditions of dampness. Easily applied and is intended to be used cold, heating being unnecessary. Inflammable and should be kept away from an open flame.

★ NET PRICES PER CAN

PINT	QUART	½ GALLON	1 GALLON
<b>\$1.00</b>	<b>\$1.80</b>	<b>\$3.50</b>	<b>\$6.00</b>

## HANDY REPAIR BUNDLE OF RAWHIDE LACING

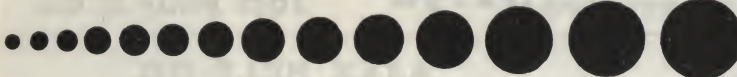
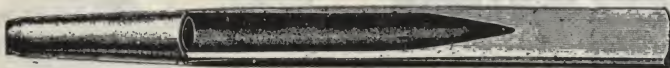


Fig. No. 2948

This handy bundle consists of about half pound of mixed good strong rawhide lacing of various widths and lengths, practical for repairing harness, belts and other leather equipment.

★ Net Dozen Bundles, **\$3.60**

## ROUND BELT PUNCHES



0 1 2 3 4 5 6 7 8 9 10 11 12 13

Fig. No. 403

Standard quality punches. Good grade steel. Long wearing.

Numbers	1 to 6	7 to 9	10 to 12	13-14	15-16
★ NET DOZEN	\$2.45	\$3.20	\$3.95	\$4.70	\$6.20

## ROGERS BELT PUNCHES

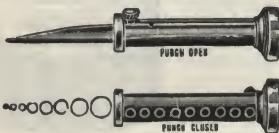


Fig. 402

When not in use the punch is drawn back into the handle. Will cut any size hole from 1/16 to 3/8 inch. in canvas, rubber, or leather belting with perfect ease.

★ NET EACH, **\$0.75**

## ARCH PUNCHES



Fig. 4423

Made of alloy tool steel, high in wearing and shock-resisting qualities. Larger sizes, prices on application.

Diameter Hole, Inch	★ NET EACH	Diameter Hole, Inch	★ NET EACH
1/4	\$0.56	5/8	\$0.66
5/16	\$0.56	9/16	\$0.66
3/8	\$0.56	3/4	\$0.72
7/16	\$0.56	7/8	\$0.78
1/2	\$0.60	1	\$0.85

## POINTED BELT AWL



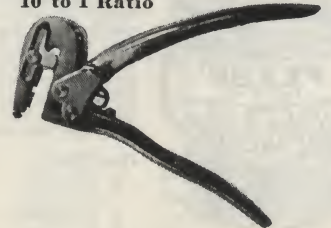
Fig. No. 415

For use with lace leather and perforating fabric elevator belts for bolts. Does not cut the thread of the fabric but separates it for the lace or elevator bolt.

★ NET DOZEN, **\$3.60**

## SAMSON HAND PUNCH

Powerful leverage,  
10 to 1 Ratio



Will punch holes through a solid 1/4 inch of paper, cardboard or leather; or through untempered metal up to 20 gauge. Furnished with die for 1/4 inch hole. Nickel plated.

Fig. 3609... ★ NET EACH, **\$3.00**

Interchangeable unit of one punch and one die. Specify size, 5/32, 1/8, 5/16, 3/8, 1/2 or 3/4 inch.

Fig. 3610... ★ NET UNIT, **\$0.75**



# AJAX BRAND RAWHIDE LACE LEATHER

## AJAX CUT BELT LACING

The best rawhide lace that can be made; nothing but choice stock used; made of leather tanned by mechanical process; uniform and every string guaranteed. Put up in 100 ft. bundles only



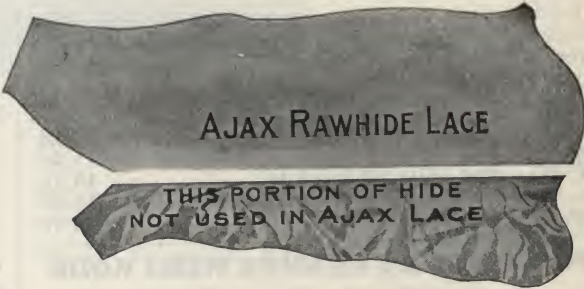
Fig. 936

★ NET PER 100 FEET

Width .....	1/4 inch	5/16 inch	3/8 inch	7/16 inch	1/2 inch	5/8 inch	3/4 inch
★ Net per 100 feet .....	\$1.52	\$1.80	\$2.25	\$2.75	\$3.35	\$3.95	\$4.55

### Ajax Lace Leather in Sides

We recommend the use of Ajax Rawhide Lace for durability and economy. It is a closely trimmed lace and there is, therefore, less waste than on the cheaper qualities. Nothing but the best native green hides are used tanned by a mechanical process which prolongs the life of the leather and makes it tough and flexible. Ajax Lace will not dry out with age.



AJAX RAWHIDE LACE

THIS PORTION OF HIDE NOT USED IN AJAX LACE

★ Net Square Foot **60c**

Fig. No. 376

# INDIAN TANNED CUT BELT LACING

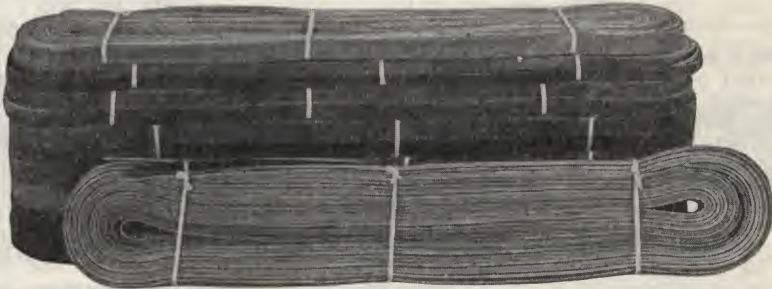


Fig. 936B

Extra strong. Made of native packer hides. Tanned by special process whereby the fibre is tough and flexible. All grain leather used. A very serviceable lace that will not dry out with age.

Width, Inches .....	1/4	5/16	3/8	7/16	1/2	5/8	3/4
★ NET 100 FEET .....	\$1.52	\$1.80	\$2.25	\$2.75	\$3.35	\$3.95	\$4.55



### INDIAN TAN CUT BELT LACING

Fig. 4293

Highest grade lace leather made. Guaranteed 100 feet assorted lengths in box. Each length in glassine envelope.

Lace Width Inches	Number and Length of Laces in Box	★ NET 100 FEET
1/4	33; All 36 1/2 Inch	\$1.70
5/16	28; 7-3', 10-3 1/2', 11-4'	\$2.05
3/8	20; 6-4', 8-5', 6-6'	\$2.50
7/16	20; 6-4', 8-5', 6-6'	\$3.05
1/2	17; 7-5', 5-6', 5-7'	\$3.70
5/8	15; 7-6', 6-7', 2-8'	\$4.40
3/4	13; 5-7', 7-8', 1-9'	\$5.05

### INDIAN TANNED LACE LEATHER IN SIDES



Fig. 376B

Sides are trimmed. No waste. Has great tensile strength. Made of good selection green packer hides. Tanned throughout. Made of a very satisfactory leather that will not dry out.

★ NET SQUARE FOOT ..... \$0.60



**STEEL BELT CLAMPS WITH RODS**

Fig. No. 346.

Recommended for taking up belts up to 12 inches wide. Complete with  $\frac{5}{8}$ -in. x 4 ft. cold rolled steel rods, fitted with heavy square thread bronze nuts.

★ NET PAIR, \$18.00

**IRON SCREW WOOD BELT CLAMP**

Fig. No. 1321D.

Rock maple frame, corrugated jaws hold belt securely. Wrought iron screws with Acme "V" threads. Not so heavy as our Fig. No. 350 clamp, but practical for average shop use.

★ NET PER PAIR

★ NET PAIR

No. 270—For belts 6 to 14 in.....	\$11.25
No. 271—For belts 12 to 18 in.....	13.15
No. 272—For belts 18 to 24 in.....	16.90
No. 273—For belts 24 to 36 in.....	33.75

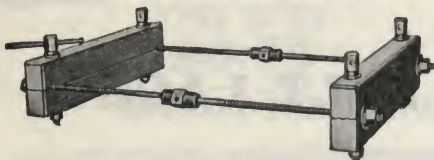
**WOODEN BELT CLAMPS WITH RODS**

Fig. No. 350.

To the mechanic who wants a belt clamp made for real service, we offer our Fig. No. 350 clamp. Rods are cold rolled steel, cut with square thread and fitted with heavy bronze nuts. Made extra strong throughout—should last a lifetime.

★ NET PER PAIR

★ NET PAIR

Width	Rods	
14 in.	$\frac{3}{4}$ in. x 6 ft.	\$25.00
14 in.	1 in. x 8 ft.	35.00
16 in.	$\frac{3}{4}$ in. x 6 ft.	28.00
16 in.	1 in. x 8 ft.	38.00
18 in.	$\frac{3}{4}$ in. x 6 ft.	30.00
18 in.	1 in. x 8 ft.	40.00
20 in.	$\frac{3}{4}$ in. x 6 ft.	38.00
20 in.	1 in. x 8 ft.	48.00
24 in.	$\frac{3}{4}$ in. x 6 ft.	44.00
24 in.	1 in. x 8 ft.	54.00
30 in.	$\frac{3}{4}$ in. x 6 ft.	55.00
30 in.	1 in. x 8 ft.	65.00

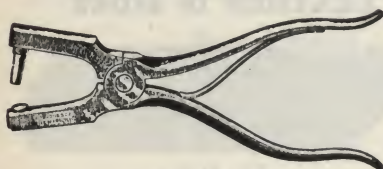
**SPRING BELT PUNCH**

Fig. No. 404

Hardened and tempered steel punches. For general use.

★ NET EACH, \$0.65

**REVOLVING SPRING BELT PUNCH**

Fig. No. 405

Hardened and tempered steel tubes, mounted on revolving roller.

4 tube roller. ★ NET EACH, \$0.90  
6 tube roller. ★ NET EACH, \$1.10

**BELT MAKERS TOOLS****TRIMMING KNIFE**

Fig. 4303

3  $\frac{1}{2}$  inch blade. White handle.

★ NET EACH, \$0.25

★ NET DOZEN, \$2.40

**HEEL SHAVE**

Fig. No. 2487

The original Snell's heel shave with the O. E. D. improvement. Blades made of the best obtainable steel and easily adjusted.... ★ NET EACH, \$1.50  
Extra Blades ..... ★ NET EACH, \$ .60

**BELT MAKERS' PLANE**

Fig. No. 382

2  $\frac{3}{8}$ -in. adjustable blade, hardwood handles, designed for chamfering ends of belts.

★ NET EACH, \$7.00

**HAND SLICKERS**

Fig. 347

Size 4  $\frac{1}{4}$  by 5  $\frac{1}{2}$  inches. Highly tempered steel blade. Wood handle.

★ NET EACH, \$1.50

**FINGER STEELS**

Fig. No. 2275

The genuine P. S. Stubbs English make, with handles ..... ★ NET EACH, 60c

**RUBBERSET GLUE BRUSH**

Fig. No. 348.

No. 4, All Russia bristle set in rubber, will not come loose from action of hot glue.

★ NET EACH, \$3.25

**GLUE HEATER—KEROSENE**

Fig. 349

For belt makers' and cabinet makers' use. Copper pail and cup, heater of heavy tin with wire reinforced legs.

1 quart size..... ★ NET EACH, \$3.00  
3 pint size..... ★ NET EACH, \$3.50

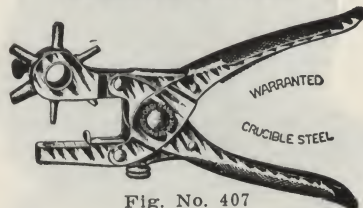
**BERNARD REVOLVING SPRING PUNCH**

Fig. No. 407

8 in. size, open throat, parallel jaws, full nickel plated, 6 steel screw tubes, Nos. 1 to 6, mounted on revolving wheel, adjustable gauge ..... ★ NET EACH, \$4.00



# "ALENCO" WIRE BELT LACING



Fig. No. 294

For lacing belts which run on pulleys 12 inches in diameter or larger, wire belt lacing is gaining rapidly in popularity.

Alenco Wire Belt Lacing, made of a secret alloy of metals, possesses great strength, combined with convenient flexibility. Makes a smooth, even joint, and is easily applied.

Upon comparison, size for size, with other makes, you will find that "Alenco" (formerly McCauley) Wire Belt Lace is more pliable and stronger. The size of the wire is larger and our method of packing in large, loose coils does not make the wire brittle. 50 ft. in box.

★ NET PRICES PER BOX	
No. 0.	For very light, narrow, single leather belts ..... <b>30c</b>
No. 1.	For single leather belts, 6-inch and narrower; also 4-ply rubber ..... <b>30c</b>
No. 2.	For single leather belts wider than 6-inch; for double belts under 8 inches, and 5 and 6 ply rubber ..... <b>40c</b>
No. 3.	For drive belts, either rubber, leather or stitched cotton... <b>40c</b>

## CUTTING PLIERS & SPRING PUNCHES

Cutting Pliers for wire lace...net per pair **\$0.85**  
Spring Punches for wire lace...net per pair **.65**

# BRISTOL'S PATENT STEEL BELT LACING

Fig. No. 383  
Style Nos. 11 to 19Fig. No. 384  
Style Nos. 1 to 5Fig. No. 385  
Style Nos. 1100 to 119

Made of cold rolled steel, with wedge shaped points. Can be driven through belt without cutting the fibers. Can be quickly applied with a hammer. Assorted lengths, 100 inches in box.

## LIST PRICES PER BOX

Nos.	For Leather Belts	Per Box
00	$\frac{1}{16}$ to $\frac{1}{8}$ Inch Split and Extra Light.....	\$1.00
0	$\frac{1}{8}$ to $\frac{3}{16}$ Inch Split and Light.....	1.00
1	$\frac{3}{16}$ to $\frac{1}{4}$ inch Ordinary Single.....	1.50
2	$\frac{1}{4}$ to $\frac{5}{16}$ inch Extra heavy and wide Single.....	2.00
3	$\frac{5}{16}$ to $\frac{3}{8}$ inch Double.....	2.50
4	$\frac{3}{8}$ to $\frac{7}{16}$ inch Heavy Double.....	3.00
5	$\frac{7}{16}$ to $\frac{1}{2}$ inch Extra Heavy Double ....	3.50
For Cotton and Rubber		
100	$\frac{1}{16}$ to $\frac{1}{8}$ inch Lightest.....	\$1.00
10	$\frac{1}{8}$ to $\frac{3}{16}$ inch 2 ply.....	1.00
11	$\frac{3}{16}$ to $\frac{1}{4}$ inch 3 ply.....	1.50
12	$\frac{1}{4}$ to $\frac{5}{16}$ inch 4 ply.....	2.00
13	$\frac{5}{16}$ to $\frac{3}{8}$ inch 5 ply.....	2.50
14	$\frac{3}{8}$ to $\frac{7}{16}$ inch 6 ply.....	3.00
15	$\frac{7}{16}$ to $\frac{1}{2}$ inch 7 ply.....	3.50
17	$\frac{1}{2}$ to $\frac{5}{8}$ inch 8 ply and Extra Double Heavy Rubber and Cotton.....	4.95
19	$\frac{11}{16}$ to $\frac{13}{16}$ inch 10 ply and Extra Heavy Conveyor Belts.....	6.05
Discount .....		<b>45% OFF</b>

## LIST PRICES PER BOX

Nos.	Thickness and Kind of Belt	Per Box
1100	$\frac{1}{16}$ to $\frac{1}{8}$ inch Split Leather and Lightest Rubber and Cotton.....	\$1.00
110	$\frac{1}{8}$ to $\frac{5}{32}$ inch Split Leather and Light Rubber and Cotton.....	1.00
110 $\frac{1}{2}$	$\frac{5}{32}$ to $\frac{1}{4}$ inch Single Leather and 2 ply Rubber and Cotton.....	1.25
111	$\frac{3}{16}$ to $\frac{1}{4}$ inch Single Leather and 3 ply Rubber and Cotton.....	1.50
112	$\frac{1}{4}$ to $\frac{5}{16}$ inch Extra Heavy and wide Single Leather and 4 ply Rubber and Cotton....	2.00
113	$\frac{5}{16}$ to $\frac{3}{8}$ inch Double Leather and Ply Rubber and Cotton.....	2.50
114	$\frac{3}{8}$ to $\frac{7}{16}$ inch Heavy Double Leather and 6 ply Rubber and Cotton.....	3.00
115*	$\frac{7}{16}$ to $\frac{3}{8}$ inch Extra Heavy Double Leather and 7 ply Rubber and Cotton....	3.50
117*	$\frac{1}{2}$ to $\frac{5}{8}$ inch Conveyor and Extra Double Heavy Rubber and Cotton.....	4.95
119*	$\frac{5}{8}$ to $\frac{13}{16}$ inch 10 ply and Extra Heavy Conveyor.....	6.05

\* Recommended for all types of conveyor belts

Discount .....

**45% OFF**

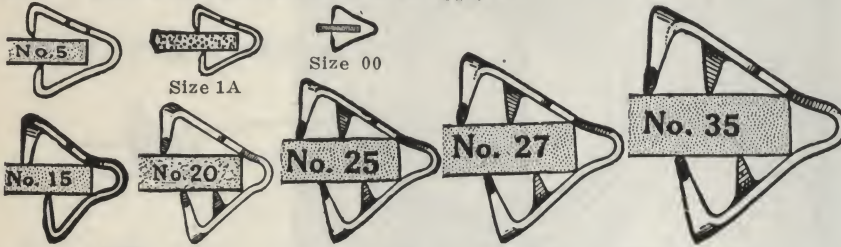


# ALLIGATOR

TRADE MARK REG. U.S. PAT. OFFICE

## STEEL BELT LACING

A smooth, strong, separable joint for any kind of belt under practically any condition of service. A size for every thickness of belting, whether it is high or low speed; light or heavy load; straight or angle drive. Easily applied. Just a hammer is required to apply it.



Lacing	LIST BOX	Sets	Lengths	Belt Widths To	Belt Thickness	Hinge Pins	Pounds
00	\$1.40	6	12	6 Inch	Up to 1/16 Inch	Corrugated	0.2
1A	\$1.60	6	12	6 Inch	1/16 to 3/32 Inch	Corrugated	0.4
5	\$1.80	6	12	6 Inch	3/32 to 1/8 Inch	Corrugated	0.6
15	\$1.90	4	8	12 Inch	1/8 to 5/32 Inch	Rocker	1.0
20	\$2.00	4	8	12 Inch	5/32 to 3/16 Inch	Rocker	1.3
25D	\$2.50	4	8	12 Inch	3/16 to 7/32 Inch	Rocker	1.5
25F	\$2.50	6	12	8 Inch	3/16 to 7/32 Inch	Rocker	1.4
25C	\$5.00	8	16	12 Inch	3/16 to 7/32 Inch	Rocker	2.7
27K	\$2.65	4	8	12 Inch	1/4 to 9/32 Inch	Rocker	1.8
27L	\$5.30	8	16	12 Inch	1/4 to 9/32 Inch	Rocker	3.3
35M	\$2.30	4	8	8 Inch	9/32 to 5/16 Inch	Rocker	1.8
35N	\$3.40	4	8	12 Inch	9/32 to 5/16 Inch	Rocker	2.7
45U	\$4.50	4	8	12 Inch	5/16 to 3/8 Inch	Rocker	3.4
55W	\$5.20	4	8	12 Inch	3/8 to 7/16 Inch	Rocker	4.9
65X	\$6.00	4	8	12 Inch	7/16 to 1/2 Inch	Rocker	6.0
75	\$8.80	4	8	12 Inch	1/2 to 5/8 Inch	Rocker	10.0

### HANDY 'S' LACING PACKAGES

The Handy 'S' Packages are supplied to the dealer in cartons, each containing a single size—10 of the small packages to the carton. Each small package contains two 6-inch sets and pins or enough lacing to join 12 inches of belting.

Size No.	15-S	20-S	25-S	27-S	35-S
LIST CARTON	\$5.50	\$6.25	\$7.00	\$7.50	\$9.50

### LONG LENGTHS—FOR EXTRA WIDE BELTS

Packed complete with handle gauge pin and pins. SPECIFY: Rocker hinge pins for transmission belting; One-piece corrugated hinge pins for conveyor service; Correct size of lacing for belt thickness.

LIST SET									
Nos.	15	20	25	27	35	45	55	65	75
14 Inch	\$0.61	\$0.64	\$0.80	\$0.85	\$1.09	\$1.44	\$1.67	\$1.93	\$2.82
16 Inch	\$0.70	\$0.73	\$0.92	\$0.97	\$1.25	\$1.65	\$1.91	\$2.20	\$3.22
18 Inch	\$0.78	\$0.83	\$1.03	\$1.09	\$1.40	\$1.86	\$2.14	\$2.48	\$3.62
20 Inch	\$0.87	\$0.92	\$1.15	\$1.21	\$1.56	\$2.06	\$2.38	\$2.75	\$4.03
22 Inch	\$0.96	\$1.01	\$1.26	\$1.33	\$1.71	\$2.27	\$2.62	\$3.03	\$4.43
24 Inch	\$1.05	\$1.10	\$1.38	\$1.46	\$1.87	\$2.47	\$2.86	\$3.30	\$4.83
26 Inch	\$1.13	\$1.19	\$1.49	\$1.58	\$2.03	\$2.68	\$3.10	\$3.58	\$5.24
28 Inch	\$1.22	\$1.28	\$1.60	\$1.70	\$2.18	\$2.89	\$3.33	\$3.85	\$5.64
30 Inch	\$1.31	\$1.38	\$1.72	\$1.82	\$2.34	\$3.09	\$3.57	\$4.13	\$6.04
32 Inch	\$1.39	\$1.47	\$1.83	\$1.94	\$2.49	\$3.30	\$3.81	\$4.40	\$6.44
34 Inch	\$1.48	\$1.56	\$1.95	\$2.06	\$2.65	\$3.51	\$4.05	\$4.68	\$6.85
36 Inch	\$1.57	\$1.65	\$2.06	\$2.18	\$2.80	\$3.71	\$4.29	\$4.95	\$7.25

Longer sizes can be furnished at proportionate prices.

### EXTRA STEEL ROCKER HINGE PINS—Can Be Cut

Order by Box Number. In box with gauge and hinge pins. Corrugated wire pins, sizes 00 and 1. Sectional steel rocker hinge pins, sizes 15 to 75.

For Lacing	Length Inches	LIST DOZEN	For Lacing	Length Inches	LIST DOZEN	For Lacing	Length Inches	LIST DOZEN
00	6	\$0.40	20-25	12	\$0.90	45	12	\$1.20
1 or 5	6	\$0.40	27	12	\$1.00	55-65	12	\$1.40
15	12	\$0.90	35	12	\$1.00	75	12	\$1.70

### ALLIGATOR BELT CUTTER

Cuts any belt (except metal stitched) up to 1/2 inch thick to 8 inches wide.

Fig. 4796

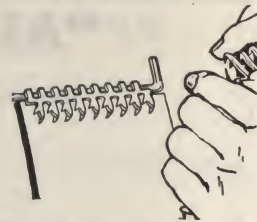


The combination guard and equalizing hold down clamp holds the belt immovable while the cut is being made. Is operated easily by a direct arm push without mechanical leverage, slicing the belt off clean and square. The knife, of alloy steel, is very durable and readily replaceable. Weight 4 pounds and 3 ozs. net. It is used in a horizontal position on a bench or is up-ended on the floor.

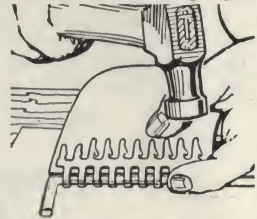
★ NET EACH, \$10.00

### Discount on all Alligator Products

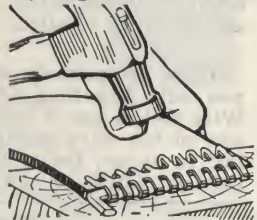
Up to \$44.99 List	54% OFF
\$50.00 to \$99.99	60% OFF
\$100.00 List and More	64% OFF
Cutters	LIST NET



- Square belt ends. Break two pieces of lacing of equal length narrower than belt. Use Gauge pin.



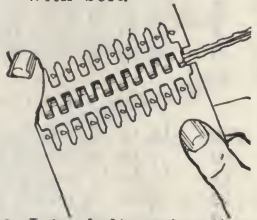
- On Iron Block, center the bar of lacing on the top side of belt. Drive end prongs half through belt, holding lacing firmly against gauge pin—then drive all prongs on top side half way through. Reverse belt and drive the other prongs in full length.



- On wood block turn belt again and hammer lacing until teeth stick into wood block. Clinch under teeth sideways as they come through.



- On iron block turn belt and clinch all teeth sideways, then beat lacing down smooth and flush with belt.



- Join belt, using two pins both cut the same length with smooth faces together and lugs alternating.



## CLIPPER BELT LACERS— For Applying Clipper Hooks



**No. 0 Clipper Vise Belt Lacer.** For use only in a vise. It will lace belts up to its capacity in one operation.

No.	Capacity	Shpg. Wt.	★ NET EACH
0-4	4 Inch	3-1/2 Pounds	\$3.00
0-6	6 Inch	4-1/2 Pounds	\$3.50

**No. 3 Clipper Lacer.** For general belt lacing work. Will lace any width belt not over 3/8 inch thick. Weight, 24 pounds.

★ NET EACH \$25.00



No. 3 Clipper

**No. 1 Lever Clipper.** For belts not over 2 inches wide and 3/16 inch thick. Only No. 1 Clipper Hooks can be used. Weight, 3 lbs.

★ NET EACH, \$10.00

Also made in 2 in. vise model. Use No. 1 hooks only.

No. 101-C ★ NET EACH, \$2.50



No. 1 Lever



**No. 6 Speed Clipper** **No. 8 Speed Clipper**  
**Clipper Speed Lacers.** Laces both ends of any belt 1 inch up to size specified in 1 1/2 minutes, with only one operation for each end of the belt. Has a pressure of 37,500 pounds for the 6 inch and 45,900 for the 8 inch, embedding the hooks in perfect alignment absolutely flush with the surface. For wider belts repeat the operation. Clippers may be bolted to any work bench.

No.	Size Inches	Wt. Pounds	★ NET EACH	★ Net Extra
	6	56-1/2	\$75.00	\$5.00
	8	100	\$115.00	\$5.00

## CLIPPER BELT HOOKS

Quickly and easily applied. 100% staggered. As no two hook points enter the belt opposite each other, no belt fibers are broken. Joint is flexible and long lasting. For leather, rubber, balata and fabric belting. Special steel wire has great tensile strength and ability to withstand strain. Sufficient rawhide pins in each box.

**No. 1 Hooks.** For Nos. 1 and 101C Lacer only. For belts up to 3/16 inch thick. 50 hooks to card, 20 cards in box. ★ NET BOX, \$0.95

**Nos. 2 to 6 Hooks.** 84 hooks on card, 12 cards, one size, in box. Box will lace 80 inches, total width, both ends of belt. For Nos. 0, 3, 6 and 8 Lacers.

**No. 2.** For thin belts over small pulleys.

★ NET BOX, \$0.95

**No. 3.** For thin belts over medium sized pulleys.

★ NET BOX, \$1.00

**No. 4.** For belts up to 1/4 inch thick.

★ NET BOX, \$1.00

**No. 4 1/2.** For heavy duty belts up to 1/4 inch thick.

★ NET BOX, \$1.15

**No. 5.** For belts up to 5/16 inch thick.

★ NET BOX, \$1.15

**No. 6.** For belts up to 3/8 inch thick.

★ NET BOX, \$1.50

1 TO 24 BOXES ..... NET

25 BOXES OR MORE, ASSORTED ..... 10% OFF

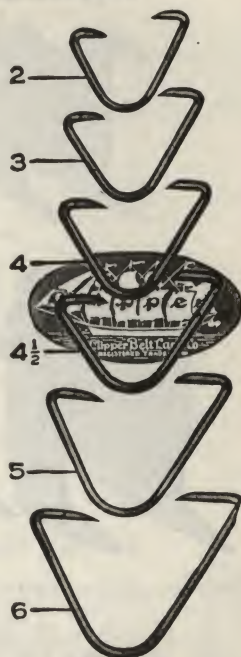


Fig. 2347

## RAWHIDE AND CLIPPER PINS For Clipper Belt Hooks



Fig. No. 2348

Two styles—Twisted Rawhide and Clipper Special which is chemically treated hard fibre and is water resistant. Use these pins for straight drives only.

For use with Clipper Belt Hooks. Packed in bundles of 24 12-inch pins which can be cut to suit requirements. Assorted bundle contains 3 No. 13, 5 No. 12, 6 No. 11, 5 No. 10, 3 No. 9, 2 No. 8. Assorted bundle always furnished unless otherwise specified.

### ★ NET PACKAGE

Size No.	Diameter Inch	For	Rawhide	Clipper Special
13.	9/64	Nos. 1, 2 & 3 Hooks.....	\$0.85	\$0.70
12.	7/64	No. 4 Hooks.....	\$.85	\$.70
11.	6/64	No. 4 1/2-5 Hooks.....	\$.85	\$.70
10.	5/64	No. 4 1/2-5 Hooks.....	\$.95	\$.80
9.	10/64	No. 6 Hooks.....	\$1.05	\$.90
8.	11/64	No. 6 Hooks.....	\$1.15	\$1.00
7.	12/64	Heavy Belts .....	\$1.45	\$1.20
5.	14/64	Heavy Belts .....	\$2.00	\$1.60
Assorted Sizes, Nos. 8-13.....			\$.90	\$.75

## CLIPPER BELT CUTTERS

CUTS AND SQUARES  
ALL BELTS AND BRAKE LINING

OPEN—  
READY  
FOR BELT

CLOSED—  
READY TO CUT



Fig. No. 2857, Open End

**Open Ends.** For cutting lengths from roll or squaring the ends of all makes of belts preparatory to lacing them. Will cut brake lining with metallic fibres without injury to the blade. Is safe, the knife cannot be raised high enough to become a hazard.

Fig. 2857A, with 6 inch blade ..... ★ Net Each, \$15.00

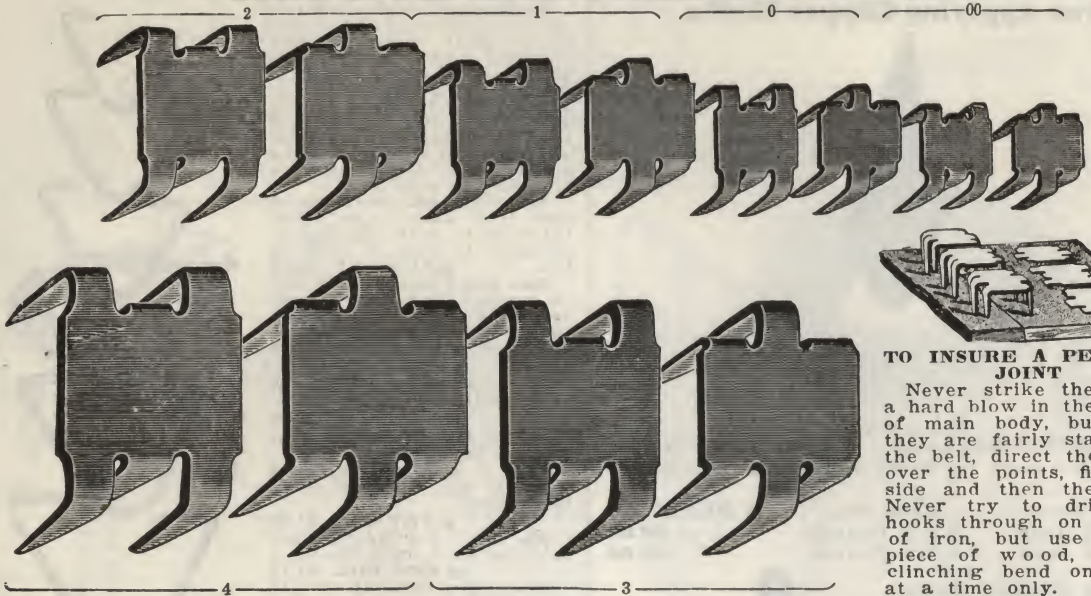
Fig. 2857B, with 10 inch blade ..... ★ Net Each, 20.00

Fig. 2857C, 6 inch extra blade ..... ★ Net Each, 1.50

Fig. 2857D, 10 inch extra blade .... ★ Net Each, 2.75



## STAG SOLID BACK STEEL BELT HOOKS



### TO INSURE A PERFECT JOINT

Never strike the hooks a hard blow in the center of main body, but after they are fairly started in the belt, direct the blows over the points, first one side and then the other. Never try to drive the hooks through on a piece of iron, but use a soft piece of wood, and in clinching bend one joint at a time only.

Fig. No. 1950

A solid back hook with zigzag wedge shaped teeth, made from open hearth steel. Make stronger, more elastic and smoother joints, will run over small pulleys and can be used on all types of belting.

### Directions for Applying Stag Hooks

Cut both ends of belt square and place them on a piece of soft wood. Place the hooks on the joint and drive through, well down to belt, turn belt over, lay on pulley or piece of iron and bend points toward the joint and imbed them in the belt. Run clinched side against the pulley. Always leave  $\frac{1}{8}$  to  $\frac{1}{4}$  inch on each edge of belt.

In applying Nos. 2 to 7 to new or very firm belts, better results will be obtained by placing them on the joint, and tap lightly to mark where the teeth will enter the belt (first chalk across Rubber or Stitched Canvas belts), then make holes with a pointed awl (never use a belt punch), replace the hooks, drive through and clinch as directed.

Use the two forms of hook alternately as shown in cut.

### LIST PRICES PER BOX

No.	Type of Belting	No. in Box	Per Box
00	Light, $\frac{1}{16}$ - $\frac{5}{32}$ in. thick.....	200	\$1.60
0	Light, $\frac{1}{8}$ - $\frac{3}{16}$ in. thick.....	200	2.00
1	Single leather, 3-ply rubber or cotton.....	100	1.20
2	Heavy single or light double leather, or 4-ply rubber.....	100	2.00
3	Double leather or 4-6 ply rubber...	100	3.40
4	Heavy double leather or 6-8 ply belts.....	100	5.00
5	Extra heavy double leather or 6-8 ply belts.....	100	8.00
6	Belts $\frac{1}{2}$ to $\frac{1}{16}$ thick.....	100	11.00
7	Belts $\frac{3}{8}$ to $\frac{1}{16}$ thick.....	100	18.00

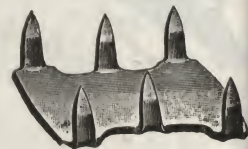
**DISCOUNT ON STAG HOOKS.....70% OFF**

Fig. No. 386  
Malleable

### STANDARD BELT FASTENERS Malleable and Steel

Especially adapted for use on single leather belts when used over small pulleys or at high speed, but can also be used on any type of belt. Hooks designed to secure the greatest holding surface on the width of the belt, and teeth shaped to avoid injury to fiber of belt. All Nos., 50 in box, except Nos. 51-54 $\frac{1}{2}$  (steel), 100 in box.

Note: Use 2 or more fasteners for wide belts.

Fig. No. 387  
Steel

### MALLEABLE, LIST PRICES PER 100

No.	For Belt Width	Per 100
1	1 inch.....	\$ 6.00
2	1 $\frac{1}{4}$ and 1 $\frac{1}{2}$ inch.....	8.00
3	1 $\frac{3}{4}$ and 2 inch.....	10.00
4	2 $\frac{1}{4}$ and 2 $\frac{1}{2}$ inch.....	13.00
5	2 $\frac{3}{4}$ and 3 inch.....	14.00

### Single Leather, Extra Wide

For old single leather belts and for belts wider than 4 inches.

No.	For Belt Width	Per 100
3 $\frac{1}{2}$	2 inch.....	\$14.00
5 $\frac{1}{2}$	3 inch.....	15.00
7 $\frac{1}{2}$	4 inch.....	18.00

### DISCOUNT

### DOUBLE LEATHER, NARROW BACK

No.	For Belt Width	Per 100
8	2 inch.....	\$16.00
10	3 inch.....	22.00
11	3 $\frac{1}{2}$ inch.....	24.00
12	4 inch.....	26.00

### 4 Ply Rubber, Narrow Back

No.	For Belt Width	Per 100
13	2 inch.....	\$16.00
14	2 $\frac{1}{2}$ inch.....	18.00
15	3 inch.....	20.00
16	4 inch.....	24.00

### 4 Ply Old Rubber, Extra Wide

No.	For Belt Width	Per 100
18	3 inch.....	\$22.00
19	4 inch.....	25.00

### 5 and 6 Ply Rubber

No.	For Belt Width	Per 100
21 $\frac{1}{2}$	2 $\frac{1}{2}$ inch.....	\$20.00
22	3 inch.....	22.00
23	4 inch.....	25.00

### 7 and 8 Ply Rubber, Extra Wide

No.	For Belt Width	Per 100
24	3 inch.....	\$27.00
25	4 inch.....	30.00
26	4 inch, extra wide and heavy, for the largest and heaviest belt, teeth $\frac{1}{16}$ .....	66.00
27	4 inch, teeth $\frac{3}{8}$ in. long.....	66.00

**50% OFF**

### STEEL, LIST PRICES PER 100

#### Double Leather, 4 Ply

No.	For Belt Width	Per 100
55	2, 4 and 6 inch.....	\$10.00
56	2 $\frac{1}{2}$ and 5 inch.....	13.00
57	3 and 6 inch.....	15.00

#### 5 and 6 Ply Rubber

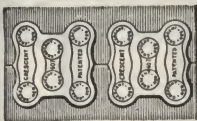
No.	For Belt Width	Per 100
58	2, 4 and 6 inch.....	\$17.00
59	2 $\frac{1}{2}$ , 5 and 10 inch.....	18.00
60	3, 6 and 9 inch.....	20.00

### DISCOUNT

**55% OFF**



# CRESCENT BELT FASTENERS



Outside

Universally used on all kinds and sizes of belts on open drives, quarter turn, half turn, and cross belt drives. Sizes completely cover every belting service from light high-speed to and including extremely heavy. Assure maximum transmission of power. Make certain the belt's best service and longest life. None of the lengthwise power-carrying fibres are cut away or weakened; full strength of belt is maintained and reinforced at joint by the Crescent plate.

The butt ends of the belt are held smoothly and tightly together. There is no unevenness to catch hands or clothing. No prongs or sharp points to tear clothes or in flesh. Nothing can work loose, open up or fly off. Crescent plates are used singly on narrow belts and in multiple to cover larger belt widths. Various sizes cover every condition of work. The belt ends are butted tightly together, making the belt endless for all practical purposes. The Crescent rivets which grip the belt to the plate merely separate the lengthwise belt fibres but do not cut or injure them.



Pulley Side

## CRESCENT BELT FASTENERS Without Rivets

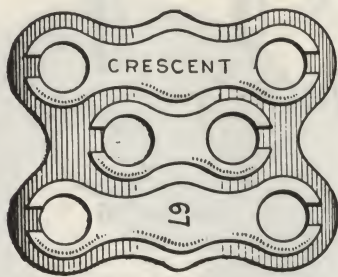


Fig. No. 2237

These fasteners are very popular with all users. The curve of the plates allows the belt to conform with the shape of the pulley, giving uninterrupted contact. They are safe, durable and easily put on.

### ★ NET PRICES PER GROSS

No.	Nature of Work	Diameter of Pulley	Width of Belt	★ NET GROSS
<b>High Speed Plates</b> (Use small shank rivets only)				
20	Light	2 in. and up	3/4 and 1 in.	\$2.88
40	Light	2 in. and up	1 in.	5.76
44	Light	2 in. and up	1 1/4, 1 1/2, 2 1/2, 3	5.76
60	Light	2 in. and up	2 and 4 in.	8.64
66	Light	4 1/2 in. and up	1 1/2 in.	8.64

### Short Grip Plates

25	Light	3 in. and up	3/4 and 1 in.	\$2.88
45	Light	3 in. and up	1 1/4, 1 1/2 and 3 in.	5.76
65	Light	3 in. and up	2 and 4 in.	8.64
85	Light	3 in. and up	2 1/2 and 5 in.	11.52
805	Light	3 in. and up	3 and 6 in.	11.52

### Medium Grip Plates

67	Med.	6 in. and up	1 1/2 and 3 in.	\$8.64
607	Med.	6 in. and up	2 and 4 in.	8.64
87	Med.	6 in. and up	2 1/2 and 5 in.	11.52
107	Med.	6 in. and up	3 and 6 in.	14.40
127	Med.	6 in. and up	3 1/2 and 7 in.	17.28
147	Med.	6 in. and up	4 and 8 in.	20.16

### Special Grip Plates

63	Med.	9 in. and up	2 in.	\$11.52
83	Med.	9 in. and up	2 1/2 in.	14.40
103	Med.	9 in. and up	3 in.	17.28
123	Med.	9 in. and up	3 1/2 in.	20.16

### Long Grip Plates

109	Heavy	12 in. and up	2 1/2 in.	\$17.28
149	Heavy	12 in. and up	3 in.	23.04
1409	Heavy	12 in. and up	3 1/2 in.	25.92
189	Heavy	12 in. and up	4 in.	28.80

### Jumbo Plates (Use Jumbo Rivets only)

1011	Ex. Hvy.	24 in. and up	2 in.	\$23.04
1611	Ex. Hvy.	24 in. and up	3 in.	28.80
2211	Ex. Hvy.	24 in. and up	4 in.	34.56

For wider belts use sufficient Crescent Plates of same grip to cover entire belt.

## CRESCENT RIVETS For Crescent Belt Fasteners Small Shank Rivets

Fig. No. 3428

For High Speed Plates only. Use rivets size 1/16 longer than thickness of belt.

### ★ NET PRICES PER GROSS

Length, In. ....	5/16	3/8	7/16	1/2	5/8	3/4
Per gross.....	\$0.40	\$0.50	\$0.55	\$0.55	\$0.60	\$0.60

## Large Shank Rivets

Fig. No. 2238

For attaching short grip, medium grip, special grip and long grip plates, use rivets size 1/16 longer than thickness of belt.

### ★ NET PER GROSS

Length, In. ....	5/16	3/8	7/16	1/2	5/8	3/4
Per gross.....	\$0.70	\$0.70	\$0.80	\$0.80	\$0.90	\$0.90
Length, In. ....	10/16	1 1/16	1 1/8	1 1/4	1 1/2	1 5/8
Per gross.....	\$0.90	\$1.00	\$1.00	\$1.10	\$1.10	\$1.10

## Jumbo Rivets

Fig. No. 3429

For Jumbo Plates only. Use rivets size 1/16 longer than thickness of belt to allow for thickness of plate for proper clinch.

### ★ NET PRICES PER GROSS

Length, In. ....	10/16	1 1/16	1 1/8	1 1/4
Per gross.....	\$1.25	\$1.40	\$1.40	\$1.55
Length, In. ....	1 1/16	1 1/8	1 1/4	1 1/2
Per gross.....	\$1.55	\$1.70	\$1.70	\$1.85

## CRESCENT RIVET EXTRACTOR



Fig. No. 3430

A convenient tool when shortening belts. 8 inches long. Weight, 1 pound.

### ★ NET EACH, \$1.00

## CRESCENT DRYER FELT RIVETS



Fig. No. 3432

For joining the riveted seam on dryer felts in the paper mills. The head is flat and formed so as to sink below the surface of the felt without cutting. The prongs also sink below the surface, which means there is no metal to come in contact with the paper, no matter which way these rivets are driven in. The rivets can be driven in and clinched in one operation. Made in one length, 3/4 inch. Packed one gross to a box. Electro-galvanized finish is rust-resistant. Solid copper is rust-proof.

Electro-Galvanized.  
Solid Copper.

★ NET GROSS, \$0.72  
★ NET GROSS, \$1.25



**FLEXCO H. D. BELT FASTENERS**

For Conveyor and Elevator Belting. For Slow Running Drives. For Heavy Work. For Transmission Use Only Where The Pulleys Are Large.



The belt ends are joined by compression and this principle is by far the most successful method of joining belting mechanically and for tight butt joints in heavy belting. The plates are cupped to receive the nuts and bolt heads. The finished joint is practically flush with the surface of the belt and operates satisfactorily through trippers and takeup pulleys. The strain is distributed over the whole space covered by the plates and not against the bolts alone. About a half inch space between plates gives strength far in excess of the strain the bearings and framework will stand. The completed joint is tight; it troughs naturally and conforms readily to crowned pulleys. Monel non-rusting metal fasteners for use where there is salt, coke, chemicals, etc., can be furnished, prices on request.



Fig. 5244

**LIST STANDARD BOX**

Contains 10 sets of fasteners complete with plates, bolts, nuts and clips.

Size No.	Thickness, Inches	Pulley Diameter, Inches	Minimum Weight, Pounds	LIST BOX OF 10 SETS
1	1/4 to 7/16	12	1	\$6.00
1-1/2	3/8 to 9/16	18	2.3	\$7.00
2	1/2 to 11/16	30	3	\$8.00
2-1/2	11/16 to 1	42	6	\$12.00
3	7/8 and up	48	6.6	\$13.00

**LIST 100 — EXTRA PARTS**

Size No.	Upper Plates	Lower Plates	100 Bolts & Nuts	100 Bolts Only	100 Nuts Only
1	\$11.00	\$11.00	\$20.00	\$8.00	\$12.00
1-1/2	\$12.00	\$12.00	\$25.00	\$10.00	\$15.00
2	\$18.00	\$18.00	\$25.00	\$10.00	\$15.00
2-1/2	\$24.00	\$24.00	\$40.00	\$16.00	\$24.00
3	\$30.00	\$30.00	\$40.00	\$16.00	\$24.00

**Number of Sets Required For Various Belt Widths**

Size No.	8	10	12	16	18	20	24	30	36	48	60	72
1	6	8	10	13	15	16	20	25	30	40	50	60
1-1/2	..	6	8	10	12	13	16	20	24	32	40	48
2	..	..	..	9	10	11	14	17	21	28	35	42
2-1/2	..	..	..	..	9	10	13	16	19	26	32	39
3	..	..	..	..	..	10	13	16	19	26	32	39

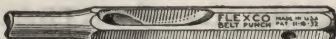


Fig. 5245. Straight Side Punch



Fig. 5246. Flexco Wrench

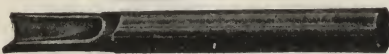


Fig. 5247. Flexco Boring Bit

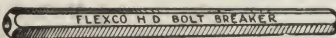


Fig. 5248. Flexco Bolt Breaker

**FLEXCO TOOLS — LIST EACH**

Size No.	Fasteners, Nos.	Straight Side Punch	Flexco Wrench	Flexco Boring Bit	Flexco Bolt Breaker
1	1	\$4.00	\$2.25	..	\$1.25
2	1-1/2 & 2	\$5.00	\$2.25	\$2.25	\$1.50
3	2-1/2 & 3	\$7.00	\$2.25	\$2.25	\$2.00

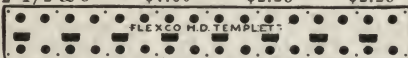


Fig. 5249

**FLEXCO TEMPLETS** — Specify size of fastener and specify length required. They make application easy and make a tight butt joint. Minimum length 12 inches. Furnished in any length 12 to 60 inches. 12 Inch Templet ..... LIST EACH, \$4.00 Long Templets... LIST \$4.00 PLUS \$0.20 ADDED INCH

**DISCOUNT, up to \$199.99 List..... 74% OFF**  
**DISCOUNT, \$200.00 List or More..... 76% OFF**

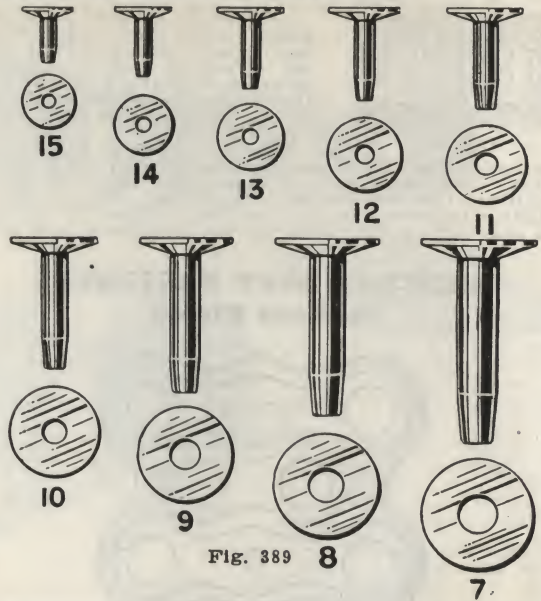
**COPPER BELT RIVETS AND BURRS**

Fig. 389

Standard styles, sizes and lengths carried in stock. Equal quantities of rivets and burrs in pkg.

**★ NET EACH BOX**

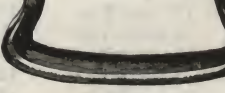
UNIFORM LENGTHS			ASSORTED LENGTHS		
Size No.	One Pound Box	Half Pound Box	Size No.	One Pound Box	Half Pound Box
3 to 9	\$0.44	\$0.31	3 to 9	\$0.46-1/2	\$0.32
10	\$0.45	\$0.32	10	\$0.47-1/2	\$0.33
11	\$0.47	\$0.32	11	\$0.48-1/2	\$0.34
12	\$0.47	\$0.32	12	\$0.49-1/2	\$0.34
13	\$0.56	\$0.37	13	\$0.58-1/2	\$0.38
14	\$0.56	\$0.37	14	\$0.58-1/2	\$0.38
15	\$0.56	\$0.37	15	\$0.58-1/2	\$0.38

**JONES' BELT HOOKS**

No. 10.



No. 9.



No. 8.

Fig. 399  
 Made of Norway iron with bevel points. They clinch perfectly, leaving an almost perfectly smooth surface on both sides of the belt.

**LIST 1000**

No.	Size, Inch	In Box	List
10	13/16	500	\$3.50
9	15/16	500	\$4.00
8	1-1/8	500	\$5.00
7	1-1/4	250	\$6.00
6	1-3/8	250	\$8.50
5	1-5/8	250	\$11.00
4	1-3/4	200	\$14.00
3	1-7/8	200	\$16.00
2	2-1/16	200	\$20.00
1	2-1/4	100	\$30.00
..	2-1/2	100	\$50.00
..	3	100	\$60.00

**DISCOUNT JONES' HOOKS ..... 50% OFF**

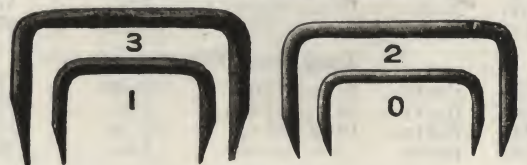
**COVEL BELT FASTENERS**

Fig. 395

Made of special tempered steel wire so that the points will not break in clinching. 200 in box.

No.	0	1	1-1/2	2	3	4
Width	23/32	11/16	23/32	1	1-1/32	1-1/4
Length	3/8	1/2	11/16	5/8	3/4	3/4

**★ NET 1000, \$2.25**



# GARDEN HOSE

## BRAIDED TYPE IN CONTINUOUS LENGTHS

In the construction of braided hose, the fabric is comparatively loosely woven and the rubber is forced in between the strands, thus welding all of the component parts into an inseparable unit. There are, therefore, no plies to separate and the hose is practically nonkinkable.

Bale Lots of 250 or 500 Feet, Uncoupled .....DEDUCT 1c FOOT

CARE OF HOSE

Avoid bending the hose at a sharp angle. Avoid dragging hose around sharp corners or rough obstacles. Hose should be shielded from the crushing action of wheels when laid across a driveway. Under no circumstances should the water pressure be left on the

hose when not in use. Shut water off at the faucet rather than at the nozzle. Sunlight is very injurious to rubber. A hose reel is the best simple means of protecting hose when not in use.



### PARKSIDE & GREENWOOD

Nonkinkable

Parksid—Corrugated: Fig. 2364.

Greenwood—Smooth Cover: Fig. 2365.

#### Extra Heavy Tube and Cover

A very popular black braided garden hose that is recommended for general use. Made from good materials, insuring satisfactory service. Tube is made with the two braid construction. Extra heavy tube and cover.

★NET FOOT COUPLED		
1/2 INCH	5/8 INCH	3/4 INCH
10c	11c	12c

## ALENCO BRAIDED EXTRA QUALITY GARDEN HOSE



No Kink

Alenco—Brown Smooth Cover: Fig. 2368.

No Kink

Alenco is the highest grade, nonkinkable, braided garden hose made. Specially recommended for the high pressures and the severest service. Will stand considerable abuse. With care it will last for years longer than other hose. The first cost may be slightly higher but it will cost you less in the long run. Made from absolutely the best extra quality materials. Extra heavy, extra high grade, black, rubber tube. Extra heavy, high grade, tough, brown, rubber cover.

Tube is made with the two braid construction.

★NET FOOT COUPLED		
1/2 INCH	5/8 INCH	3/4 INCH
16c	16 1/2c	17c

### CHAMPION RED MOULDED HOSE



Champion—Red Corrugated Cover: Fig. 2978.

Attractive appearance. Good quality. Braided. Made from good materials. Tube is made with the two braid construction. Extra heavy tube and cover. Long wearing. Non-kinking.

★NET FOOT COUPLED	
5/8 INCH	3/4 INCH
12c	13c

### PINEHURST GREEN MOULDED HOSE



Pinehurst—GREEN Corrugated Cover: Fig. 4081

Nonkinkable. Recommended for general use. Good quality. Braided. Made from good materials. Tube is made with the two braid construction. Extra heavy tube and cover. Long wearing.

★NET FOOT COUPLED	
5/8 INCH	3/4 INCH
12c	13c



# PREMIER GREENHOUSE HOSE

## FOR THE SEVEREST WORK



Fig. No. 2369



Actual Size

### A Tough, Extra High Quality Hose, with an Extra Heavy Cover.

Premier hose is the result of considerable experiment on our part to make a hose which would withstand the most severe wear and tear. It is specially adapted for greenhouse service. The results and satisfaction it has given are remarkable. It is a very high grade tough hose. Will withstand very high pressures, has an extra heavy high-grade cover of rubber which protects the hose when it is dragged around corners and over cement floors and cinders. It is practically unkinkable and has a full waterway.

### "The Best Hose on Earth," say hundreds of satisfied buyers.

No user of greenhouse hose will be satisfied with any other hose after using Premier. A trial order will convince any greenhouse customer that there is nothing better made for the purpose intended.  $\frac{3}{4}$  inch size only. Can be furnished in any continuous length up to 500 feet. Couplings are attached without extra charge to 50-foot or longer lengths.

**$\frac{3}{4}$  INCH** ..... **\*NET FOOT 18c**

#### GARDEN KING BRAND—7-PLY Wrapped Garden Hose



Fig. No. 2362

This is a high-grade garden hose, of 7-ply wrapped construction with an excellent tube and cover. This hose is fully guaranteed and will always give good service. Supplied in 50-ft. lengths only, couplings attached.

$\frac{1}{2}$ -inch, 7-ply ..... **\*NET FOOT, \$0.15**  
 $\frac{5}{8}$ -inch, 7-ply ..... **\*NET FOOT, \$ .16**  
 $\frac{3}{4}$ -inch, 7-ply ..... **\*NET FOOT, \$ .17**

#### LEXINGTON BRAND—3 AND 4-PLY Wrapped Garden Hose



Fig. No. 2363

Our Lexington Brand is made of heavy duck, yet the hose is flexible. Contains a high grade cover and excellent tube, and is suitable for the hardest kind of service. Fully guaranteed.

Including couplings attached to each 50 ft. section:

$\frac{3}{4}$ -inch, 3-ply ..... **\*NET FOOT, \$0.17**  
 $\frac{3}{4}$ -inch, 4-ply ..... **\*NET FOOT, \$ .19**

#### BLACK GIANT BRAIDED HOSE



Black Giant—Black Corrugated Cover: Fig. 2367

A black braided garden hose that may be retailed profitably at a popular price. Substantially constructed with heavy single braid woven from 2 ply yarn. Extra heavy tube and cover.

**$\frac{5}{8}$  Inch—50 Foot Lengths**

**Coupled.....\*NET FOOT, \$0.09**

#### ILLINOIS 5-PLY GARDEN HOSE



Fig. 2361

Guaranteed. Wrapped construction with smooth cover. Gives very dependable and satisfactory service. Supplied in lengths up to 500 feet. Couplings attached to 50 feet or more.

$\frac{1}{2}$  Inch, 5 Ply..... **\*NET FOOT, \$0.08**  
 $\frac{5}{8}$  Inch, 5 Ply..... **\*NET FOOT, \$0.09**  
 $\frac{3}{4}$  Inch, 5 Ply..... **\*NET FOOT, \$0.10**

#### HALF OVAL WIRE WINDING—For All Types of Hose



Fig. 410

Wire winding greatly forestalls bursting, kinking, abrasion and general abuse. Does not greatly affect flexibility or weight.

#### \* NET FOOT

Size Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
For Water Hose	\$0.03	\$0.04	\$0.05	\$0.05½	\$0.06½	\$0.09	\$0.10
For Steam Hose	\$0.04	\$0.05	\$0.05½	\$0.06½	\$0.08	\$0.10	\$0.11



# ALENCO BRAIDED WATER HOSE

Will Not Kink. In Continuous Lengths up to 500 Feet



Fig. 2378

The very best that money can buy and it is worth all it costs. It is a braided hose, made from the highest quality materials. It is almost impossible to kink it, and it can be furnished in any continuous length up to 500 feet. We unconditionally guarantee this hose to give satisfaction.



Actual Size—1 Inch

**1 Inch—Two Braid**  
★ NET FOOT ..... 27c

**1 1/4 Inch—Three Braid**  
★ NET FOOT ..... 45c

**1 1/2 Inch—Three Braid**  
★ NET FOOT ..... 57c

1 to 49 Feet ..... See Above Prices  
50 Feet or More of a Size DEDUCT 10%

See Page 34 For Wire Protection.

## ROAD BUILDERS HIGH PRESSURE WATER HOSE



Fig. 4295

Extremely durable. Tough. Withstands high pressures. For contractors' use where hose will be abused by being pulled over concrete, sand, gravel, etc. Outer ply is closely braided from hard-twisted cable yarn and the hose may be used after the cover is worn off. The extra-heavy cover is thoroughly cemented to the braided ply and will stay there until worn out. 50 foot lengths only.

1 1/2 Inch, 5 Ply ..... ★ NET FOOT, \$0.75  
2 Inch, 5 Ply ..... ★ NET FOOT, \$0.90

One 50 Foot Length ..... See Above Prices  
Two 50 Foot Lengths of a Size in

Bale ..... DEDUCT 10%

## STANDARD WATER HOSE PRICE LIST

Internal Diam., In.	2 Ply Per Ft.	3 Ply Per Ft.	4 Ply Per Ft.	5 Ply Per Ft.	6 Ply Per Ft.
1/2	\$0.20	\$0.25	\$0.30	\$0.37	\$0.45
3/4	.25	.30	.37	.46	.55
1	.33	.40	.50	.62	.75
1 1/4	.42	.50	.62	.77	.93
1 1/2	.50	.60	.75	.93	1.12
1 3/4	.58	.70	.87	1.08	1.30
2	.66	.80	1.00	1.25	1.50
2 1/4	.75	.90	1.12	1.40	1.68

## UNITED STATES RED COVER OUTER BRAID WATER HOSE



Fig. 4523

Moderate priced. Improved construction. For normal hydrant pressures. 3/4 inch cover. 3 plies of heavy duck with one close outer braided ply made from hard twisted cable yarns. For industrial uses, road contractors, sewer cleaning, etc.

1 Inch, 4-Ply ..... ★ NET FOOT, \$0.40  
1 1/4 Inch, 4-Ply ..... ★ NET FOOT, \$0.50  
1 1/2 Inch, 4-Ply ..... ★ NET FOOT, \$0.60  
2 Inch, 4-Ply ..... ★ NET FOOT, \$0.80  
2 1/2 Inch, 4-Ply ..... ★ NET FOOT, \$1.00

1 to 49 Feet ..... See Above Prices  
50 Foot Length ..... DEDUCT 10%  
Two 50 Foot Lengths of one size in a bale ..... DEDUCT 10-10%

## YALE WRAPPED WATER HOSE



Fig. No. 2375

Constructed of a good weight of duck, has good friction and the cover is excellent quality, so that it will not wear off readily. Guaranteed.

★ NET FOOT ..... 3 Ply 4 Ply  
1 inch ..... \$0.28 \$0.35  
1 1/4 inch ..... \$0.35 \$0.43  
1 1/2 inch ..... \$0.42 \$0.53

1 to 49 Feet ..... See Above Prices  
50 Foot Length ..... DEDUCT 10%  
Two 50 Foot Lengths of one size in a bale ..... DEDUCT 10-10%

## LEXINGTON WRAPPED WATER HOSE



Fig. No. 2377

This is our highest grade of wrapped hose, very heavy and with an excellent friction. Extremely serviceable. We recommend this to the trade where the demand is for superior quality. For use by contractors, road builders, etc. where a high grade hose is required but is to be used only with normal hydrant pressures. 2 and 2 1/2 inch sizes can be used for flushing.

### ★ NET PRICES PER FOOT

1 inch 3 ply .... \$0.33      1 inch 4 ply .... \$0.42  
1 1/4 inch 3 ply .... \$0.42      1 1/4 inch 4 ply .... \$0.51  
1 1/2 inch 3 ply .... \$0.50      1 1/2 inch 4 ply .... \$0.62  
.....      2 inch 4 ply .... \$0.83  
.....      2 1/2 inch 4 ply .... \$1.04  
.....      3 inch 4 ply .... \$1.25

1 to 49 Feet ..... See Above Prices  
50 Foot Length ..... DEDUCT 10%  
Two 50 Foot Lengths of one size in a bale ..... DEDUCT 10-10%



# ★THREE★STAR★ SUPER STEAM HOSE



Fig. No. 2379

## The Always Dependable High Grade Hose!

A high grade, superior steam hose for flue blower or other hard service. The rubber tube is a compound that will not char under high temperatures and is capable of withstanding high pressures. The plies are of heavy duck and are held together by a special friction which is forced into the duck under pressure. In ordering steam hose, especially for use under high pressure, bear in mind that "Three Star" is the best and will cost you less over a long period of time. You run no risk of burst hose, with the attendant danger of injury to employees and damage to your property.

For table showing the number of plies required for various pressures see the following page.



Actual Size  
1/2 Inch, 4 Ply

### ★NET FOOT

Diameter	4-Ply	5-Ply	6-Ply	8-Ply
1/2 Inch	\$0.50	.....	\$0.75	.....
3/4 Inch	\$0.63	\$0.77	\$0.93	\$1.25
1 Inch	\$0.77	\$0.95	\$1.14	\$1.51
1 1/4 Inch	.....	\$1.16	\$1.39	.....
1 1/2 Inch	.....	\$1.39	\$1.66	.....

**1 to 49 Feet..... See Above Prices**  
**50 Foot Length..... DEDUCT 10%**  
**Two 50 Foot Lengths of one size in a**  
**bale..... DEDUCT 10-10%**

See Page 34 For Wire Protection



# STEAM HOSE

## YALE BRAND STEAM HOSE



Fig. No. 2382

Yale brand is recommended for light pressure or hot water; an excellent hose for the price. Carried in stock in the constructions shown below. Any other constructions made to order promptly.

## LEXINGTON BRAND STEAM HOSE



Fig. No. 2380

Lexington is a high-grade hose that will give a good account of itself under exacting conditions. Carried in stock in the constructions noted below. Any other constructions made to order promptly.

## UNITED STATES OUTER BRAID STEAM HOSE



Fig. 4524

The skin of double thickness rubber between all plies insulates the yarn from inside heat.

Improved construction. A combination of close woven wrapped duck plies with an outer close seamless braided ply of hard twisted cable yarn. The outer braided ply prevents the hose from kinking and keeps out dirt and moisture in case the heavy rubber cover should be worn away.

### ★ NET PRICES PER FOOT

Diameter	4 Ply
1/2 inch	\$0.34
3/4 inch	\$0.43
1 inch	\$0.52

1 to 49 Feet...See Above Prices  
50 Foot Length...DEDUCT 10%  
Two 50 Foot Lengths of one size in one shipment...DEDUCT 10-10%

See Page 34 For Wire Protection

### ★ NET PRICES PER FOOT

Diam.	4 Ply	5 Ply	6 Ply
1/2 inch	\$0.45		
3/4 inch	\$0.58	\$0.70	\$0.85
1 inch	\$0.70	\$0.87	\$1.04
1-1/4 inch	\$0.84	\$1.05	\$1.26
1-1/2 inch	\$1.01	\$1.26	\$1.51
2 inch	\$1.34		

1 to 49 Feet...See Above Prices  
50 Foot Length...DEDUCT 10%  
Two 50 Foot Lengths of one size in one shipment...DEDUCT 10-10%

See Page 34 For Wire Protection

### ★ NET FOOT

Diameter	4 Ply	5 Ply	6 Ply
1/2 inch	\$0.39		
3/4 inch	\$0.50	\$0.61	\$0.74
1 inch	\$0.61	\$0.75	\$0.90
1-1/4 inch	\$0.73	\$0.98	\$1.09
1 to 49 Feet	See Above Prices		
50 Foot Length	DEDUCT 10%		
Two 50 Foot Lengths of one size in one shipment	DEDUCT 10-10%		

## IMPORTANT INFORMATION FOR THE BUYER

Be sure the couplings or connections are free from burrs that will cut the tube, which is the cause of destroying good Steam Hose. Do not attempt to put Steam Hose over iron pipe, use couplings.

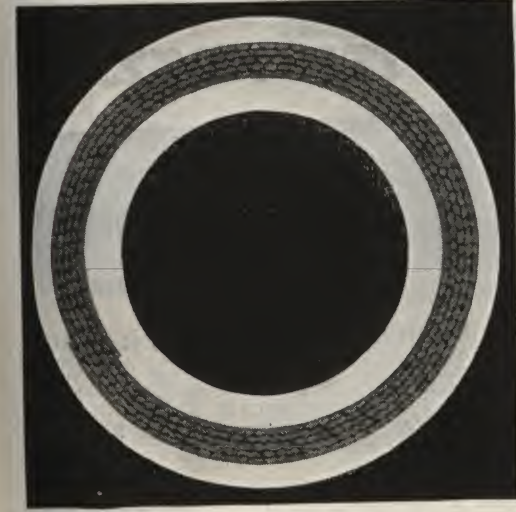
## STEAM HOSE—List Prices Per Foot

We quote above net prices on steam hose which are figured from the following standard list, here given for the convenience of our customers.

Diam., In.	3-Ply	4-Ply	5-Ply	6-Ply	7-Ply	8-Ply
1/2	\$0.47	\$0.56	\$0.70	\$0.84	\$0.98	\$1.12
3/4	.57	.71	.87	1.05	1.23	1.41
1	.70	.87	1.07	1.28	1.50	1.70
1 1/4	.85	1.04	1.30	1.56	1.82	2.08
1 1/2	1.02	1.25	1.56	1.87	2.18	2.50
1 3/4	1.18	1.45	1.81	2.17	2.53	2.90
2	1.34	1.66	2.07	2.49	2.90	3.32
2 1/4	1.50	1.87	2.33	2.80	3.27	3.74
2 1/2	1.66	2.08	2.60	3.12	3.64	4.16

## Table of Plies Required for Various Pressures

Pressure	40°	50°	60°	70°	80°
Heat	287°	298°	307°	316°	324°
1/2 inch	4 Ply	4 Ply	4 Ply	5 Ply	6 Ply
3/4 inch	4 Ply	4 Ply	5 Ply	6 Ply	6 Ply
1 inch	4 Ply	5 Ply	6 Ply	7 Ply	8 Ply
1 1/4 inch	4 Ply	5 Ply	6 Ply	7 Ply	8 Ply
1 1/2 inch	5 Ply	5 Ply	6 Ply	8 Ply	8 Ply
2 inch	6 Ply	8 Ply	8 Ply	8 Ply	8 Ply



Actual Size—1 1/2 Inch, 5 Ply

## BREWERS HOSE

ODORLESS White Crepe  
Sheet Rubber Tube

Fig. 4468

3/32 full, very tough, white cover. Plies are of 19 ounce hard duck. 5/32 inch extra smooth tube made from white crepe sheet rubber that is odorless and will not taint the brew. Ends are capped. Hose is rigid enough to stand vacuum when used for siphon purposes, yet it is sufficiently flexible to be used for conducting purposes. 50 foot lengths. For sizes 3/4, 1 and 1 1/4 inch. See Dairy or Creamery Washout Hose on the next page.

1 1/2 In., 4-Ply ★ Net Foot, \$0.79  
1 1/2 In., 5-Ply ★ Net Foot, \$0.98  
2 In., 5-Ply ★ Net Foot, \$1.30  
One 50 Foot Length...See Above Prices  
Two 50 Foot Lengths of a size in a bale...DEDUCT 10%

## BREWERS COUPLINGS

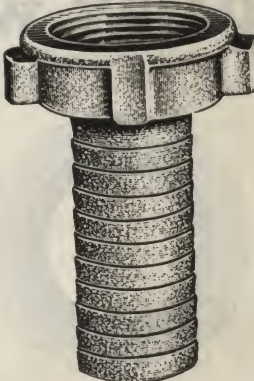


Fig. 4525

German type. Brass. Reamed and polished inside.

1 1/2 inch...★ SET, \$2.20  
2 inch...★ SET, \$2.65



# WHITE SANITARY COVER DAIRY WASHOUT HOSE

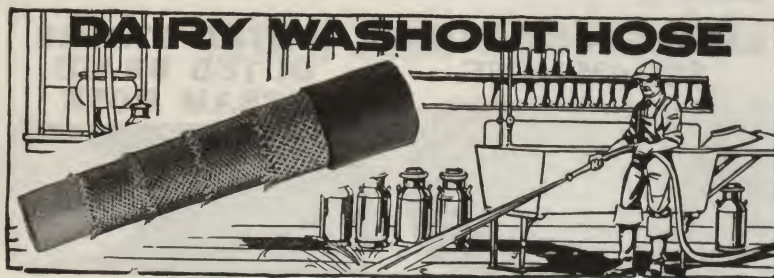
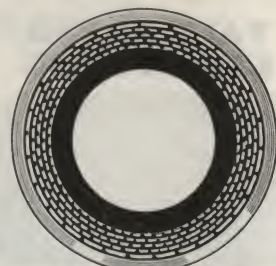


Fig. No. 2372

Actual Size  $\frac{3}{4}$  Inch Hose

## For Washing Down Floors, Etc., with Steam or Hot Water

This Washout Hose is made expressly for washout pumps in creameries, condensing plants, packing houses, breweries, or any place where hot water or steam is used in washing down floors.

### Extra Heavy High Grade Cover

Standard construction 4 plies. 3 plies of heavy steam hose duck protected by another extra outer braid, then an extra heavy high-grade cover, compounded to resist the action of butter fats, greases, etc. The tube is a compound same as our high-grade steam hose.

### Adapted for Rough Handling

This hose is designed and constructed from such materials that it is particularly adapted for rough handling incident to washing off cement floors, etc. Hose not so substantial in construction generally begins to unwrap after a short time and becomes unfitted and unsafe for service. This is the best thing that can be made for the purpose and has given exceptionally good service wherever it has been used.

$\frac{3}{4}$  Inch.....★NET FOOT, 46c

1 Inch.....★NET FOOT, 64c

# RED COVER CREAMERY WASHOUT HOSE

Resists Greases! For Washing with Steam or Hot Water

Actual Size  $\frac{3}{4}$  Inch Hose

Fig. 4117

Made expressly for washing down in creameries, packing houses and places where considerable grease, butter fats and similar materials come in contact with the hose. The special red cover is impervious to the action of greases and will not soften under a long period of use. The tube is made to withstand the action of steam and hot water. We guarantee this hose to give satisfaction.

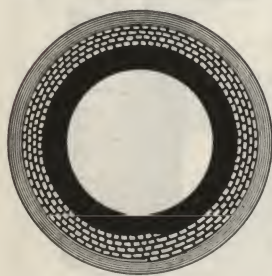
$\frac{3}{4}$  Inch.....★NET FOOT 46c 1 Inch.....★NET FOOT 64c

# WHITE, RED AND BLACK COVER DAIRY WASHOUT HOSE WITH NOZZLES

Fig. 4526

Made from a medium weight close woven extra strong duck. High grade heat resisting tube. Extra heavy cover that is grease and oil resisting. The nozzle tapers down and will not break off because the duck extends to the end of the nozzle. Nozzle tip is  $\frac{3}{8}$  of an inch.

★ NET FOOT. SPECIFY COLOR OF COVER; WHITE, RED OR BLACK.

Actual Size  $\frac{3}{4}$  Inch Hose

Size Inches	Ply	25 Foot Length With Nozzle	50 Foot Length With Nozzle	Any Length Without Nozzle
$\frac{3}{4}$	4	\$0.48	\$0.44	\$0.40
1	4	\$0.57-1/2	\$0.53-1/2	\$0.49-1/2
1 1/4	4	\$0.65-1/2	\$0.61-1/2	\$0.57-1/2

**DISCOUNTS**  
ENTIRE PAGE

1 to 49 Feet (Cut Lengths) ..... **NET**  
50 Foot Length ..... **10% OFF**  
2 or More 50 Foot Lengths ..... **10-10% OFF**



# SMOOTH and ROUGH BORE SUCTION HOSE

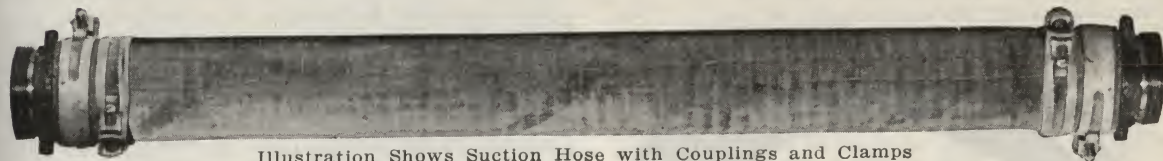


Illustration Shows Suction Hose with Couplings and Clamps

## Rough Bore Suction Hose For Couplings and Clamps

Fig. 2402

Contractors will find our rough bore suction hose ruggedly built to do the job it is intended for, and not to meet a price condition. Made particularly for use with diaphragm suction pumps or similar rough service. This hose is made with straight ends to take the ordinary hose coupling which is fastened to the hose with clamps, as shown. If you are in need of suction hose for normal use, just try our rough bore suction hose, and you will be greatly pleased with its service; the couplings will be securely attached. Wire reinforcement is sufficiently heavy to prevent kinking or collapsing. Carried in stock in 10, 12, 15, and 20 foot lengths in the following sizes:

### ★ NET FOOT WITHOUT COUPLINGS

2 INCH	2½ INCH	3 INCH	4 INCH
\$1.02	\$1.17	\$1.42	\$1.94

### ★ NET PAIR EXTRA—COUPLINGS AND CLAMPS ATTACHED

2 Inch	2½ Inch	3 Inch	4 Inch
\$1.92	\$3.48	\$5.74	\$10.20

## Smooth Bore Suction Hose

For Groove Nipples Vulcanized and Wired In

Fig. 4527

FOR HEAVY DUTY industrial and contracting use. Will render longer and more satisfactory service, because it is stronger, heavier, and more sturdily constructed. Hard spring coppered steel wire heavy duck and excellent tube and cover stocks, produces a hose that is suitable for ANY service. Freedom from shut-downs and delays caused by the use of low-priced hose and nipples improperly attached, are entirely eliminated by the purchase of our Heavy Duty Smooth Bore Suction Hose. Carried in stock in 10, 12, 15 and 20 foot lengths.

### ★ NET FOOT WITHOUT COUPLINGS

2 INCH	2½ INCH	3 INCH
\$1.15	\$1.42	\$1.59
4 INCH	5 INCH	6 INCH
\$2.11	\$4.45	\$5.50

### ★ NET PAIR EXTRA—NIPPLES WIRED ON

2 INCH	2½ INCH	3 INCH	4 INCH	5 INCH	6 INCH
\$1.83	\$2.45	\$2.76	\$4.25	\$6.88	\$8.82

# SUCTION HOSE

## Smooth Bore—Wire Reinforced

Made for hard service. The flat wire reinforcement is completely covered by the rubber. The interior of the hose is perfectly smooth, there is no obstruction to the flow of liquid, and also serves as a protection when some abrasive material is taken in. A high grade, heavy hose, thoroughly dependable and adapted for any class of service. Made up either with ends enlarged to accommodate nipples, or with straight ends for hose couplings. In ordering, please specify which is wanted.

**Note:** We will attach nipples or couplings when desired. Prices on application.



Fig. 2401

### LIST PRICES PER FOOT

Int. Diam. Inch	List Per Foot	Int. Diam. Inch	List Per Foot	Int. Diam. Inch	List Per Foot
½	\$0.65	3	\$ 4.50	6½	\$12.00
¾	1.00	3½	5.50	7	13.50
1	1.30	4	6.50	7½	15.00
1¼	1.65	4½	7.50	8	16.50
1½	1.95	5	8.50	9	19.50
2	2.60	5½	9.50	10	22.50
2½	3.50	6	10.50	12	27.50

DISCOUNT

{ Sizes up to 6 Inch ..... **40% OFF**  
 { Larger Sizes ..... **20% OFF**



## NEW TYPE CORD SMOOTH BORE SUCTION AND DISCHARGE HOSE

**Very Flexible! Light in Weight! Tough, Wear Resisting Cover!**

A few uses are: Well point, for removing water from shallow foundations; Conducting rock wool, for insulating homes against heat and cold; Conducting slag; For all contractors work; For various industrial use.

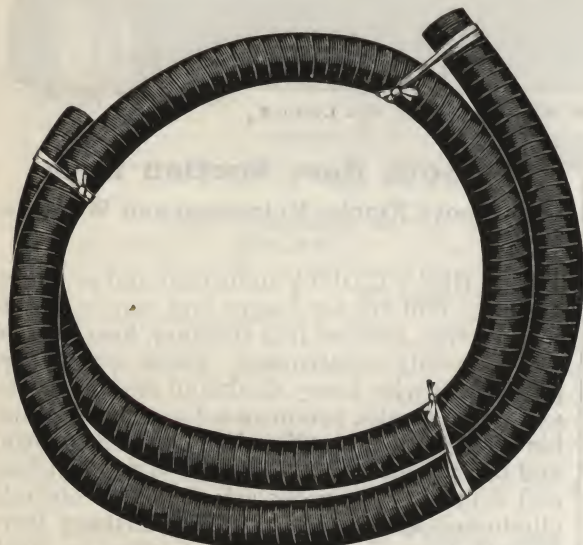


Fig. 4638

A combination suction and discharge hose, an improvement over the ordinary suction hose being light and easy to handle. It is very flexible and if crushed or flattened it can be rounded out by hammering. The round steel spiral wire is locked in the cotton jacket in such a way that denting or crushing does not displace it. Smooth bore with a tough, elastic rubber tube that resists the cutting action of abrasive materials and when used on the discharge end of the pump it offers but slight frictional resistance. A thick, tough rubber cover protects the hose against chaffing and is particularly effective against wear caused by pulsations of the pump.

This hose can also be furnished with nipples, prices on request. Carried in stock in 50 foot lengths and can be made in any length desired up to 150 feet.

### ★ NET FOOT UNCOUPLED

1 1/4 Inch	1 1/2 Inch	2 Inch	2 1/2 Inch	3 Inch	4 Inch
\$0.62	\$0.78	\$0.96	\$1.28	\$1.56	\$2.16

50 Feet or More of a Size in One Shipment, DEDUCT 10%

### ★ NET SET COUPLINGS AND CLAMPS ATTACHED

1 1/4 Inch	1 1/2 Inch	2 Inch	2 1/2 Inch	3 Inch	4 Inch
\$1.10	\$1.40	\$1.92	\$3.48	\$5.74	\$10.20

## SWIMMING POOL HOSE

A new type of hose that is particularly adaptable for cleaning out swimming pools, etc. Can be used for both suction and discharge. Light, flexible, and easy to handle. A wire reinforcement is closely wound between the fabric leaving both the rubber tube and the cover smooth.

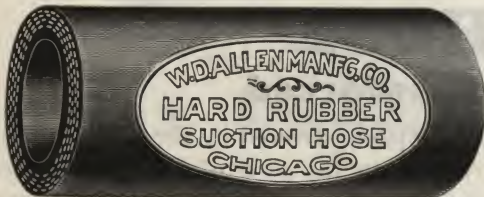
**1 INCH**  
**\$0.40**  
★NET FOOT

**1 1/4 INCH**  
**\$0.58**  
★NET FOOT

**1 1/2 INCH**  
**\$0.72**  
★NET FOOT



Fig. 4424



## HARD RUBBER SUCTION HOSE United States Brand

Fig. 2397

An old reliable grade that has given universal satisfaction. A good quality smooth cover hose with hard rubber lining to prevent collapse. Guaranteed.

Size, Inches	3/4	1	1 1/4	1 1/2
★ NET FOOT	\$0.33	\$0.40	\$0.45	\$0.54

## MANDARIN WIRE LINED TANK HOSE

Fig. 441

### Heavy Yellow Jacket

Mandarin brand is the very best tank hose to be had on the market. It is an extra quality article and is extra heavy and extra strong throughout. The jacket is woven from heavy cotton, treated to withstand mildew and moisture. We have sold thousands of lengths of Mandarin hose, with practically no returns or complaints. Mandarin Hose stays sold. Furnished in 2-inch size only and carried in 10, 15, 20 and 25 ft. lengths.

**2 INCH—★ NET FOOT 89c**





# NEW TYPE CORD DISTILLATE HOSE

**Light Weight! Oil Resisting Tube! Very Flexible!**

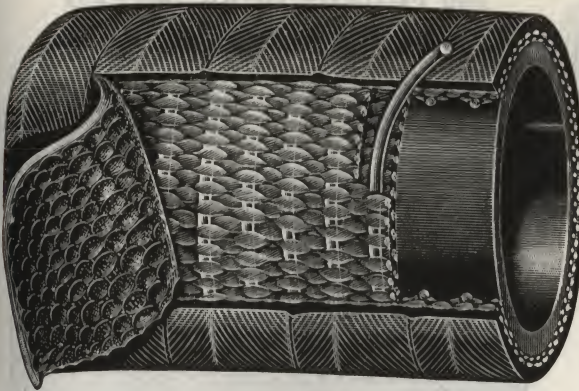


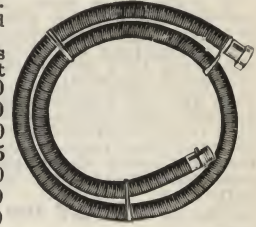
Fig. 4639

This is carried in stock in 50 foot lengths and can be made up in any lengths desired up to 150 feet.

There are many advantages in the New Type Cord such as being kink-proof, very flexible and light in construction. It is so constructed that a full diameter of oil is carried at all times, materially reducing the time of unloading. It is readily reeled and easily handled and appeals to the men on the tank wagon. It has a red rubber oil resisting tube, a round wire reinforcement with a dark brown rubber cover.

\*These sizes can be used for Tank Car Service.

Size Inches	★ Net Foot Uncoupled	★ Net Set Couplings
1	\$0.62	\$1.90
1-1/4	\$0.62	\$2.30
1-1/2	\$0.78	\$2.70
2	\$1.03	\$2.85
2-1/2*	\$1.27	\$4.80
3*	\$1.56	\$6.60
4*	\$2.16	\$10.60



1 to 49 Feet (Cut Lengths)	★ NET
50 Foot Length	10% OFF
100 Feet or More	10-10% OFF

## DISTILLATE OR FUEL OIL HOSE

Used for conducting distillate or other fuel oils, particularly for long lines on tank wagons. 3 braid construction. Inner tube is oil resisting. Stiff walls. Not easily kinked. 125 pounds working pressure.



Size Inches	Outside Diameter Inches	★ NET FOOT
1	1 17/32	\$0.57
1 1/4	1 25/32	\$0.68
1 1/2	2 1/32	\$0.80
2	2 5/8	\$1.19
1 to 49 Feet (Cut Lengths)		★ NET
50 Foot Length		10% OFF
100 Feet or More		10-10% OFF



Wire For Protecting Hose—See Page 34

Fig. 4031

## GASOLINE HOSE

**UNDERWRITERS' APPROVED**

**Note the Construction of This Underwriters Approved Metal Gasoline Hose**

A most satisfactory hose for this service. A triple hose built of a flexible metallic tube, packed at the joints to prevent seepage, then covered with a thick layer of rubber compounded to resist the dissolving action of gasoline, and the whole encased in a heavy woven cotton jacket to take the hard knocks of service. Meets the requirements of the National Board of Fire Underwriters, and is so labeled. Very flexible, strong and durable.

### ★ NET FOOT

Any Length Up to 60 Feet

Size Inches	Hose Only ★ Net Foot	★ Net Set 1 Male 1 Female Coupling	★ Net Set 2 Male 2 Female Couplings	★ Net Set 2 Male 2 Female Couplings
3/4	\$0.42	\$0.81	\$0.65	\$0.97
1	\$0.53	\$1.03	\$0.82	\$1.23
1-1/4	\$0.64	\$1.40	\$1.12	\$1.68
1-1/2	\$0.82	\$2.38	\$1.90	\$2.85
2	\$1.06	\$3.30	\$2.74	\$3.96
1 to 49 Feet (Cut Lengths)	★ NET			
50 Foot Length	10% OFF			
100 Feet or More	10-10% OFF			

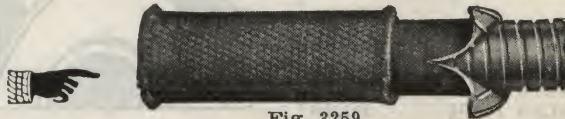
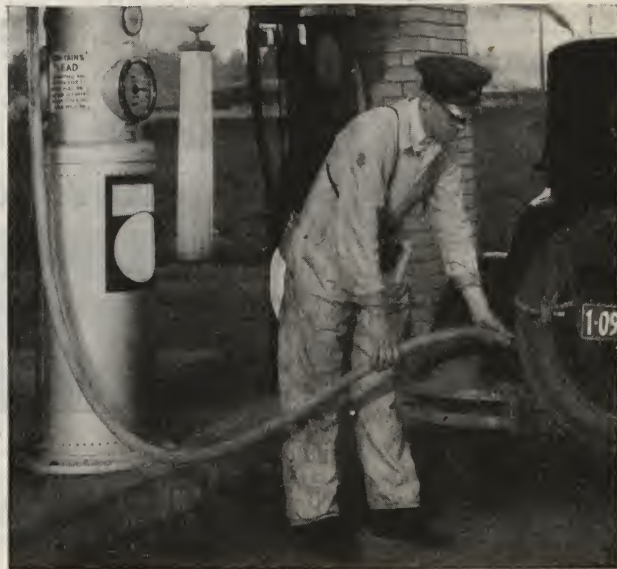


Fig. 3259

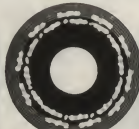




# GARAGE AIR HOSE



Fig. No. 3255

Actual Size  
¼ Inch Hose

**400 POUNDS GUARANTEED  
WORKING PRESSURE**

A high grade hose, designed especially for air, which will stand a pressure of 400 pounds. Particularly desirable for service stations and garages where the hose is constantly used and where it is subjected to a great deal of abuse. Owing to its peculiar construction, which is similar to that of a cord tire, this hose will not kink readily. It also has an extra thick, heavy red rubber cover, to enable it to withstand the kind of wear it gets when dragged over cement floors and walks. If you are looking for a thoroughly satisfactory honest-to-goodness garage air hose, this is it.

¼ in. .... ★ **NET 100 FEET, \$14.24**

¾ in. .... ★ **NET 100 FEET, \$17.12**

**COUPLINGS & CLAMPS ★ NET SET**

¼ or ¾ Inch Male and Female .....\$0.70

¼ or ¾ Inch Male and Male .....\$0.50

¼ or ¾ Inch Female and Female .....\$0.90

Wire For Protecting Air Hose—See Page 34.



## INTERLOCKED AUTO HEATER TUBING



Fig. No. 3611

Fully interlocked and designed to withstand severe working conditions. A m p l e flexibility for all ordinary purposes. Strongly constructed.

O. D. Inch	★ NET FOOT	O. D. Inch	★ NET FOOT
1 ¼	\$0.16	1 ¾	\$0.22
1 ½	\$0.16	2	\$0.26
1 ¾	\$0.18	2 ¼	\$0.28
1 ½	\$0.19	2 ½	\$0.33
1 ¾	\$0.20	3	\$0.44

## AUTOMOBILE PUMP TUBING



Fig. No. 2388

This is a special tubing made for automobile pumps. It is not a cheap tubing, but is made for a trade that requires something that is absolutely serviceable and high class. The construction of this tubing is similar to that used in a high grade Pneumatic Air Tool Hose, designed to withstand high pressures as well as severe service.

¾-inch ... ★ **NET FOOT, \$0.07**  
¼-inch ... ★ **NET FOOT, \$0.08**

## SCHRADER AIR CHUCK

All metal body. For use on all types of wheels. Free flow of air from tank to tire. Air tight. Cannot injure valve inside. 2 extra rubber washers. SPECIFY SIZE, for hose ¼ or ¾ inch inside diameter.

★ **NET EACH, \$0.65**

Fig.  
No. 3433

## ALLEN'S SAFETY AUTOMOBILE RADIATOR HOSE

An exceptional high grade for general purposes. Gives good service.

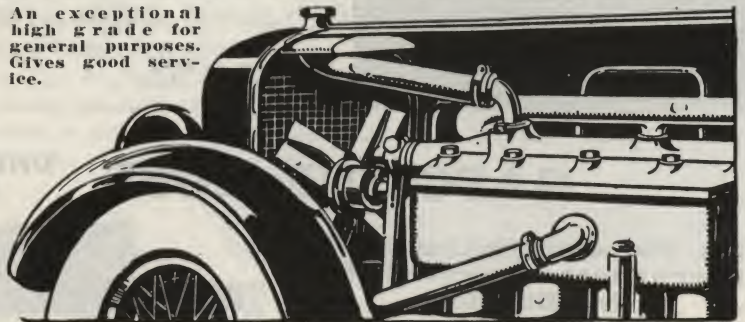


Fig. No. 2385

3 Ply. Sold in 3 foot lengths only. 6 lengths in a box.

¾ Inch	★ Net Foot, \$0.14	1 ½ Inch	★ Net Foot, \$0.21
1 Inch	★ Net Foot, \$0.15	1 ¾ Inch	★ Net Foot, \$0.23
1 ¼ Inch	★ Net Foot, \$0.16	2 Inch	★ Net Foot, \$0.24
1 ½ Inch	★ Net Foot, \$0.17	2 ¼ Inch	★ Net Foot, \$0.27
1 ¾ Inch	★ Net Foot, \$0.18	2 ½ Inch	★ Net Foot, \$0.32
2 Inch	★ Net Foot, \$0.20	3 Inch	★ Net Foot, \$0.38

## DISCOUNTS

1 to 5 Lengths of 3 Feet	NET
6 to 9 Lengths of 3 Feet	10% OFF
20 or More Lengths of 3 Feet	10-10% OFF

## AUTOMOBILE WASHOUT HOSE



Fig. 3557



Actual Size

For car washing service by compressed air or where boiling water or steam is used. High quality wrapped construction for high pressure service. May also be used for horticultural spraying. Cover is oil and abrasion resisting. Tube resists oil and heat. Special non-expanding duck insertion. 1-inch outside diameter. Maximum working pressure is 400 pounds. 50 foot lengths. See Page 34 For Wire Protection.

½-inch, 6-ply ..... ★ **NET FOOT, \$0.24**



**BLACK BRAIDED GOLF AND INDUSTRIAL WATER HOSE**



Fig. 4294

Size Inches	Braid	★ NET 100 FEET
1	2	\$25.40
1	3	\$35.60
1-1/4	2	\$39.30
1-1/4	3	\$46.40
1-1/2	3	\$53.60
2	3	\$70.60

Made especially for sprinkling on golf courses, parks, cemeteries, large estates and other large areas. It also meets 75% of the water hose requirements in industrial plants and yards for wash up service. A very good grade water hose. Braided construction. Made of highest grade of materials. Can be used for high pressures. It will stand up under the severest service.

**FLEXIBLE GREASE PUMP HOSE**

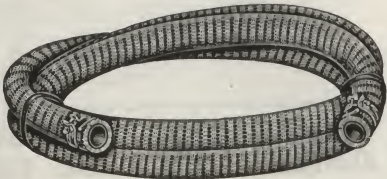


Fig. 4644

A strong, light weight, flexible woven cotton jacket, containing a single coil of spring steel wire, and lined with a special grease resisting tube. This is the ideal construction for conducting lubricants under pressure, to crank cases of automobiles.

1/2 Inch .....	★ NET FOOT, \$0.24
3/4 Inch .....	★ NET FOOT, \$0.26
1 Inch .....	★ NET FOOT, \$0.30

**ALLEN'S BOOSTER BRAKE HOSE**



Fig. 4643

Can be used on Bendix Brakes. Made with rubber cover and rubber tube, but with a specially treated fabric compound on the inside tube. Furnished in standard lengths of 25 or 50 feet.

3/4 Inch .....	★ NET FOOT, \$0.35
----------------	--------------------

**ALENCO AIR HOSE**

Braided construction. Made in lengths up to 500 feet. Smooth cover, 5/64 inch thick that is tough and will resist abrasive wear. Light, flexible and easy to handle. Oil resisting inner rubber never breaks into loose particles and never clogs the tools.



Fig. 4641

Two braid is recommended for most work such as foundries, shop tools, tie tamping, light portable compressor service, etc. Three braid is for most work such as foundries, heavy shop tools, average and heavy portable compressor service, tie tamping, air hoists, metal mining, quarry service, etc. Couplings are extra.

Size Inches	Braid	Working Pressure	Wt. Lbs. 100 Feet	Maximum Length	★ NET 100 FEET
1/2	2	200	31 1/2	500	\$27.70
1/2	3	250	39	500	\$31.70
3/4	2	150	48	500	\$31.70
3/4	3	200	59	500	\$41.50
1	3	150	75	500	\$48.00
1 1/4	3	125	94	300	\$66.00
1 1/2	3	125	86	50	\$82.00

**BRAIDED OXY-ACETYLENE HOSE**

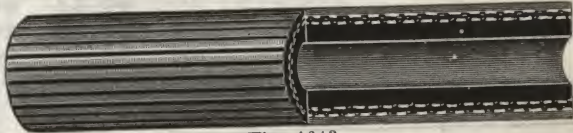


Fig. 4642

For use on all types of acetylene welding and cutting equipment. Made for hard service. It is strong, flexible and durable. SPECIFY COLOR: Red or Green. Usually red is used for acetylene lines and green for the Oxygen lines. The tough corrugated cover resists abrasive wear. The tube will not oxidize or deteriorate with hot gas. Lengths can be furnished up to 500 feet.

Size Inches	Braid	Wt. Lbs. 100 Feet	★ NET 100 FEET
3/16	1	8	\$12.50
1/4	2	14	\$17.80
1/4	3	18 1/2	\$21.40
5/16	2	16	\$19.70
3/8	2	18 5/8	\$21.40
3/8	3	24	\$25.00

**RED COVER STEAM IRONING HOSE**



Fig. No. 3555

**STEAM RESISTING—6 PLY**

Especially constructed for use on steam pressing machines. The tube is of a steam-resisting compound, with six plies of duck, giving sufficient required strength, yet retaining its flexibility, so desirable in a hose for this purpose.

3/16 Inch, Black—3 Ply .....	★ NET FOOT, \$0.18
1/4 Inch, Red Cover .....	★ NET FOOT, \$0.24
5/16 Inch, Red Cover .....	★ NET FOOT, \$0.26
3/8 Inch, Red Cover .....	★ NET FOOT, \$0.28

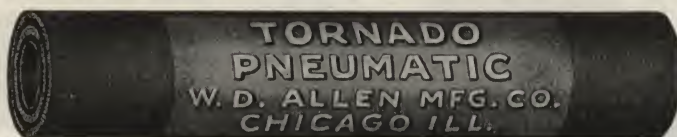
<b>DISCOUNTS</b> ENTIRE PAGE	{	<b>1 to 49 Feet (Cut Lengths)</b> .....		<b>NET</b>
		<b>50 to 99 Feet</b> .....	<b>10%</b>	<b>OFF</b>
		<b>100 Feet or More</b> .....	<b>10-10%</b>	<b>OFF</b>



## TORNADO PNEUMATIC AIR TOOL HOSE

### Constructed As An Air Hose Should Be

**High  
Grade**



**Oil  
Resisting**

Fig. No. 443



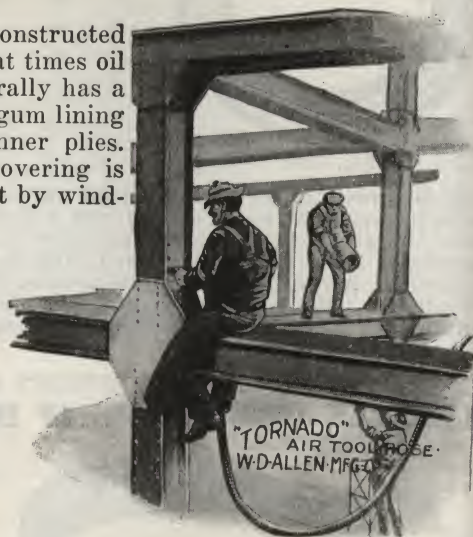
Actual Size  
¾ Inch

Tornado Pneumatic Air Tool Hose is constructed with a high-grade oil resisting tube, for at times oil will find its way into the hose and naturally has a deteriorating effect. Made with a pure gum lining between the outer two plies and the inner plies. As an added protection to the outer covering is sometimes desirable, we can re-enforce it by winding the hose with half oval wire.

#### ★ NET PER FOOT

Size Inch	Ply	Working Pressure Pounds	Bursting Pressure Pounds	PLAIN No Winding	Oval Wire Wound
¼	5	225	950	\$0.19	\$0.23½
⅜	7	225	1025	\$0.22	\$0.26½
½	7	175	900	\$0.24	\$0.28¾
¾	7	125	700	\$0.28	\$0.33½
1	9	125	700	\$0.41	\$0.47

Carried in 50 foot and 25 foot lengths. There will be an additional charge of 2 cents per foot for pieces cut to any other length.



## CONTRACTOR'S AIR DRILL HOSE

Fig. 4528



Actual Size—¾ Inch

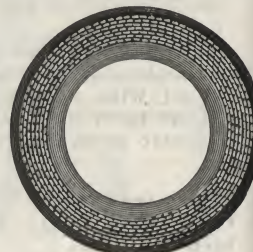
Made with heavy duck plies. Has an extra thick oil proof tube. Rugged wear resisting cover. Recommended for use in connection with Air Rock Drills, Compressors, Road Breakers, Concrete Breakers and other air tools. 50 foot lengths.

Inside Size Inches	Ply	Working Pressure Pounds	Bursting Pressure Pounds	★ NET FOOT
½	4	200	1000	\$0.28
¾	4	170	850	\$0.31
1	4	135	650	\$0.42
1	5	170	850	\$0.37

Wire For Protecting Hose—See Page 34

## RED COVER HIGH PRESSURE AIR DRILL & GREASE HOSE

Fig. 4529



Actual Size—¾ Inch

For use with air or with grease and oils. The heavy tube in this hose will positively withstand the deteriorating action of oils and greases. Made with close woven hard plies with a very high grade ¼ inch full red cover. 50 foot lengths.

Inside Size Inches	Ply	Working Pressure Pounds	Bursting Pressure Pounds	★ NET FOOT
½	7	350	1650	\$0.29
¾	7	300	1500	\$0.35
1	9	275	1450	\$0.52

Wire For Protecting Hose—See Page 34



Fig. No. 2390

Allen's Oxy-Acetylene Hose is made especially for brazing and welding work. It is very strong yet light and flexible and easy to handle. It has a good rubber tube and cover and 5 plies of fabric. We carry in stock three sizes most commonly used in both red and black cover. When ordering please state which color is wanted.

#### ★ NET PRICES PER FOOT

¼ inch	\$0.16
⅜ inch	\$0.18
¾ inch	\$0.19

Wire Protection—See Page 34



**SPRAY HOSE****FOR HIGH PRESSURE  
SPRAYING**

**ACTUAL  
SIZE  
½ INCH  
7 PLY  
SPRAY  
HOSE**



Fig. 2370



**ACTUAL  
SIZE  
½ INCH  
6 PLY  
SPRAY  
HOSE**

Fig. 4640

A special spray hose made for use with power spraying machines. Constructed to withstand the severe abuse spray hose is usually given. For working pressures up to 450 pounds. Wrapped construction. High quality. Guaranteed to give satisfactory service. 50 and 25 foot lengths.

Size, Inches	Ply	★ NET 100 FEET
3/8	6	\$26.40
1/2	7	\$30.30

Made especially for orchard spraying. A wrapped construction, in continuous lengths up to 500 feet. Made by a special process. Corrugated cover. Can be used on working pressures up to 600 pounds.

Size Inches	Ply	★ NET 100 FEET
3/8	5	\$26.40
1/2	6	\$30.30

High Pressure Hose Couplings. See Page 63A.

**PAINT SPRAY HOSE—It Resists Turpentine**

Used on all types of paint spraying outfits or as a conducting hose for paint or varnish. Braided construction. Tube and cover are of a very special compound which gives remarkable resistance to turpentine and other similar solvents found in paints and varnishes. 200 pounds working pressure.



Fig. No. 3558

Size Inches	Outside Diameter	★ NET 100 FEET
3/8	1 1/16	\$21.45
1/2	7/8	\$24.95



**Actual Size  
½ Inch**

**LEXINGTON CHEMICAL  
ENGINE HOSE  
RED COVER**

**Fig. 2384. Actual Size, ¾ Inch  
UNDERWRITERS' LABELED**

Probably more chemical engine hose is rendered unfit for use from natural disintegration than by actual service. High grade with an extra good quality of rubber that assures long life whether used or not. Will stand the terrific strain of pressure and the deteriorating effect of chemicals. Recommended without reservation. High quality rubber lining. Four plies of heavy canvas. Good red cover. Furnished in lengths of 50 feet.

¾ inch	★ NET FOOT, \$0.47
1 inch	★ NET FOOT, \$0.63

**DISCOUNTS  
ENTIRE PAGE**

1 to 49 Feet (Cut Lengths)	NET OFF
50 to 99 Feet	10% OFF
100 Feet or More	10-10% OFF

**VACUUM CLEANER  
HOSE—  
United States Brand**

Fig. No. 2371

For household use. Extremely light and flexible, yet strong and durable. 2 ply, wire inserted and cloth covered. Prices on application for Rubber Cover. Furnished in lengths of fifty feet only.

★ NET PRICES PER FOOT	★ NET FOOT
2 Ply	
2 ¾ inch	\$0.59-1/2
* 1 inch	\$0.62-1/2
* 1 ¼ inch	\$0.71-1/2
* 1 ½ inch	\$0.81-1/2
* 2 inch	\$1.18
* 2 ½ inch	\$1.54

\* Not carried in stock, but has to be made up to order in fifty foot lengths only.

**SAND BLAST  
HOSE**

Fig. 2383

Only a superior quality tube can withstand the cutting action of the abrasive materials used in this process. Our Sand Blast Hose is a thoroughly reliable grade for use under ordinary conditions. Made to order only. Sold only in 50 foot lengths.

¾ inch, 3 ply	★ Net Foot, \$0.72
1 inch, 4 ply	★ Net Foot, \$0.78
1 ¼ inch, 4 ply	★ Net Foot, \$0.91
1 ½ inch, 4 ply	★ Net Foot, \$1.06

**ACID HOSE**

Fig. 437

Made to order only. With special tube that will withstand the injurious effects of acid. Prices on request.

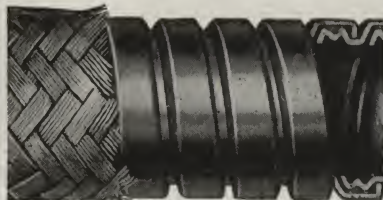


# FLEXIBLE METAL HOSE AND COUPLINGS

For Heavy and Hard Service, and for High Pressure Work



**BD15 FLEXIBLE METAL HOSE.** Interlocked construction, asbestos packed. It is strong and durable. Recommended for high pressure work. Made of galvanized steel and of phosphor bronze.



**BD20 FLEXIBLE METAL HOSE.** Ball bearing construction, reinforced with a single braided wire jacket. For extra pressures. An outside spiral armor wire is furnished on sizes 1/2 inch and larger.



**S1 SEAMLESS FLEXIBLE METAL TUBING.** 100% Leakproof. Starting with a rigid seamless tube of high tensile strength bronze, special machinery forms corrugations in its entire length. The tubing is then covered with bronze wire braiding. Working pressures: 3/16 to 3/8 inch about 900 pounds; 1/2 to 3/4 inch, 600 pounds; 1 inch, 500 pounds; 1-1/4 and 1-1/2 inch, 400 pounds. 2 to 3 inch about 200 pounds. \*Lengths longer than 40 feet; and 2 or 3 braid; prices on request.

**STEEL HOSE—FOR HEAVY OILS, ETC.** Do not use for gasoline or volatile oils, (see page 41 for Gasoline Hose). Do not use steel hose (use bronze hose) for water or for steam as steel hose will rust. Satisfactory, efficient, and economical. Oil keeps the bearing surfaces lubricated and increases the flexibility of the hose and actually prolongs its life.

**BRONZE HOSE—FOR STEAM, WATER, ETC.** Recommended for carrying steam under all ordinary conditions; for water; or for any service requiring strong, high pressure hose that WILL NOT RUST.

**HOSE LIST FOOT.** Write for BD15 prices on larger sizes not listed, up to 8 inch.

Inside Diameter, Inches	3/16	1/4	5/16	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
BD15 Steel Hose	..	..	..	..	0.40	.60	.80	1.00	1.20	1.50	1.90	2.30
BD15 Bronze Hose	..	..	..	..	.75	1.25	1.60	2.25	2.70	3.50	4.00	5.50
BD20 Steel, Steel Braid	.26	.31	.37	.50	.81	1.08	1.40	1.65	...	...	...	...
BD20 Bronze, Steel Braid	.34	.41	.52	.70	1.11	1.58	2.05	2.45	...	...	...	...
BD20 Bronze, Bronze Braid	.36	.43	.55	.75	1.21	1.68	2.20	2.65	...	...	...	...
S1 Seamless Bronze, 1 Braid	1.05	1.05	1.20	1.40	1.85	2.70	4.20	4.70	6.30	7.85	10.50	14.50

## DISCOUNT

BD15 Steel Hose or BD15 Bronze Hose	20% OFF
BD20 Steel Hose or BD20 Bronze Hose	20% OFF
S1 Seamless Bronze Tubing, 1 Bronze Braid, Up to 3/4 Inch	50% OFF
S1 Seamless Bronze Tubing, 1 Bronze Braid, 1 Inch and Larger	50-10% OFF

## COUPLINGS FOR FLEXIBLE METAL HOSE

**SOLDERED COUPLINGS.** For use where temperature will not be in excess of 250° Fahrenheit.  
**HEAT-PROOF COUPLINGS.** For STEAM; for high temperatures.

**No. 1 Brass Coupling.** For hose where there is comparatively little strain at the coupling end.  
**No. 2 Brass Coupling.** For hose that is handled constantly, or where an excessive amount of twisting or bending occurs at the coupling ends. The shank of the coupling is longer than No. 1 and larger in diameter for reinforcing with an outside covering of flexible metal hose.

### LIST SET OF COUPLINGS—I.P.T. (Male and Female)

Hose Size, (Iron Pipe Thread)	3/16	1/4	5/16	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3
No. 1 Soldered For BD15 Hose	...	...	...	...	...	...	...	...	...	...	...	...
No. 1 Soldered For BD20 Hose	\$1.50	\$1.50	\$1.75	\$2.00	\$2.25	\$3.50	\$5.00	\$6.00	\$8.00	\$11.00	\$15.00	\$19.00
No. 1 Soldered For S1 Hose	\$1.05	\$1.15	\$1.30	\$1.65	\$2.35	\$3.20	\$4.55	\$6.00	\$7.50	\$10.00	\$13.00	\$16.25
No. 2 Soldered For S1 Hose	\$1.52	\$1.67	\$1.98	\$2.42	\$3.54	\$5.22	\$8.10	\$10.50	\$13.50	\$18.90	\$24.00	\$30.00
No. 1 Heat-Proof For BD15 Hose	...	...	...	...	...	...	...	...	...	...	...	...
No. 1 Heat-Proof For BD20 Hose	\$3.50	\$3.50	\$4.00	\$4.00	\$5.00	\$7.00	\$9.00	\$11.00	...	...	...	...
No. 1 Heat-Proof For S1 Hose	\$2.30	\$2.40	\$2.60	\$2.90	\$3.90	\$5.60	\$7.10	\$9.30	\$11.80	\$15.00	\$20.50	\$26.00
No. 2 Heat-Proof For BD15 Hose	...	...	...	...	...	...	...	...	...	...	...	...
No. 2 Heat-Proof For BD20 Hose	\$4.50	\$4.50	\$5.50	\$6.00	\$9.00	\$12.00	\$15.00	\$18.00	...	...	...	...

## COUPLING DISCOUNTS

Type of Coupling Attached to Hose	Soldered, For BD15 or BD20 LIST NET	Soldered, For BD15 or BD20 LIST NET	Heat-Proof, For Seamless S1 LIST NET	Heat-Proof, For Seamless S1 LIST NET
Loose, 1 to 9	20% OFF	20% OFF	15% OFF	10% OFF
Loose, 10 or More	30% OFF	30% OFF	15% OFF	25% OFF

## STEEL FLEXIBLE OIL UNLOADING HOSE



To figure cost, use price on steel flexible hose, plus 3/4 soldered coupling list for female coupling (shown above), plus extra list for elbow tank car couplings, which follows.  
 Consists of any length desired of steel hose, with a female soldered coupling on one end and an elbow coupling

threaded to take the outlet on union tank line cars on the other. 10 ft. lengths carried in stock.

### ELBOW TANK CAR UNLOADING COUPLINGS



Size Inch	*NET EACH
<b>Soldered Direct to Hose</b>	
2	\$8.50
2-1/2	\$9.00
3	\$12.00
4	\$18.00
<b>With I.P.T. Threaded Shank</b>	
2	\$8.50
2-1/2	\$9.50
3	\$11.00
4	\$12.50

SEE PAGE 41 FOR SPECIAL METAL GASOLINE HOSE



## WHITE RUBBER TUBING



Fig. No. 539

We carry in stock only a high grade rubber tubing. This class of goods can be made to suit the price, but we believe it is poor economy for our customers to purchase a cheap rubber tubing, which is expensive in the long run. This tubing can be made to order in any thickness of wall desired. We carry in stock, however, rubber tubing with  $\frac{1}{16}$ -inch wall from  $\frac{3}{16}$  to  $\frac{1}{2}$ -inch; with  $\frac{3}{32}$ -inch wall from  $\frac{1}{4}$  to  $\frac{1}{2}$ -inch inclusive.

Inside Diameter, Inches	LIST 100 FEET	
	$\frac{1}{16}$ Inch Wall	$\frac{3}{32}$ Inch Wall
$\frac{3}{16}$	\$4.00	.....
$\frac{1}{4}$	\$4.56	\$ 6.60
$\frac{5}{16}$	\$5.48	\$ 6.72
$\frac{3}{8}$	\$6.00	\$ 8.64
$\frac{1}{2}$	\$7.68	\$10.68
DISCOUNT .....	45-10%	OFF
250 Foot Bales .....	45-10-10%	OFF

## WINDSOR CLOTH INSERTED GAS TUBING



Fig. No. 2392

We carry in stock Windsor Brand Red C. I. Tubing, black friction, black tube, in  $\frac{3}{8}$ -inch, 2-ply only, to be used principally for gas.

This is good value and equal to any tubing of this character that is on the market.

Note—Lengths shorter than four feet will be charged as four feet.

Deduct 10% for lots of 250 feet or more.

**\$6.25**

★ NET 100 FEET

RED CLOTH INSERTION TUBING  
(BEVERAGE HOSE)

Fig. 2391

**COVER—Heavy Red Rubber**  
**CENTER—3 Ply Cloth Construction**  
**INSIDE—Heavy White Rubber**

Red Cloth Insertion Tubing is a first-class article. The inside is high-grade, heavy white rubber tubing. The center is 3-ply construction with a substantial cloth wrapping. The cover is high-grade, heavy red rubber that will stand lots of wear.

I. D. Inches & Ply ..	1/4-3	5/16-3	3/8-3	1/2-3	1/2-5	5/8-3
★ NET 100 FEET.....	\$8.45	\$9.00	\$9.70	\$11.00	\$13.75	\$14.30
1 to 49 Feet, Cut Lengths .....	NET					
50 to 99 Feet .....	10% OFF					
100 Feet or More .....	10-10% OFF					
250 Foot Bales .....	10-10-10% OFF					

## CORRUGATED COLORED RUBBER TUBING



Fig. 4032

**For Bathroom Shower**

New design. Corrugated rubber tubing furnished in three colors: Green, Blue or Orchid. High grade.  $\frac{1}{32}$  inch inside diameter.  $\frac{3}{32}$  inch wall. Specify color.

GREEN  
BLUE  
ORCHID

★ NET  
FOOT

**5 $\frac{3}{4}$ C**

## KANTLEKE GAS TUBING



Fig. No. 3648

Approved. Steady, durable, flexible. Flexible metal core, overlocked and packed with rubber, over which is blown a gas tight cured rubber tube. Green braid. Rubber ends.

Lengths, feet	2	5	6
★ NET EACH	\$0.27	\$0.48	\$0.57

## METALLIC GAS TUBING



Fig. No. 2441

$\frac{1}{16}$  inch size. Sold in cut lengths or in coils. Cut lengths have high quality rubber ends attached. Lengths of 500 feet are without ends, which must be bought separately.

**500 Ft. Coils**

500 ft. in coil.....★ Net Ft., \$0.04

**Cut Lengths**

Rubber Connections on Each End			
Length Feet	★ Net Each	Length Feet	★ Net Each
2 .....	\$0.18	7 .....	\$0.38
3 .....	.22	8 .....	.42
4 .....	.26	9 .....	.46
5 .....	.30	10 .....	.50
6 .....	.34		

## GAS TUBING ENDS



Fig. No. 2393

High grade Red Rubber.

★ NET DOZEN, \$0.60

## MILKING MACHINE TUBING



Fig. No. 2389

Made from the first quality red rubber, insuring long service. Made in all sizes, to order. Specify inside diameter and thickness of wall.

PRICES .....ON REQUEST



# Good Luck Red Sheet Packing

This is a packing that we can endorse and recommend to everyone requiring a packing that is first class in every particular. Wherever sold, it always comes up to the expectations of the buyer. Discriminating customers desiring something that they can depend upon, that will not cause trouble, also something that will remain in stock without getting hard—to this class of trade we recommend GOOD LUCK SHEET PACKING.

We unreservedly guarantee that Good Luck is as good red sheet packing as money can buy and equal to any brand on the market, regardless of the price asked.

Carried in stock in the following sizes:  
Thickness .....  $\frac{1}{16}$  in.  $\frac{3}{32}$  in.  $\frac{1}{8}$  in.  
Approx. Wt.

Per Sq. Yd....  $6\frac{3}{8}$  lbs.  $9\frac{3}{8}$  lbs.  $13\frac{3}{8}$  lbs.

**★Net Pound - - \$0.35**

100 Pound Lots, One Size and One Shipment - - - - - DEDUCT 10%



Fig. No. 506

## CLOTH INSERTED RUBBER SHEET PACKING

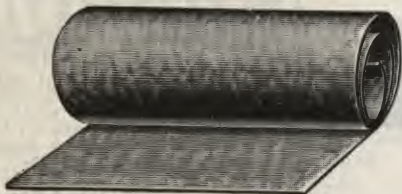


Fig. No. 2766

A first-grade quality rubber sheet packing with cloth inserted for cold water joints. 36 inches wide. Stocked in three sizes.

Thickness, Inches .....  $\frac{1}{16}$   $\frac{3}{32}$   $\frac{1}{8}$   
Approx. lbs. to sq. yd. .... 6 9 13

**★Net Pound - - - - - \$0.25**

100 Pound Lots, One Size and One Shipment - DEDUCT 10%



Fig. No. 2768

## PURE GUM SHEET RUBBER

Fig. No. 2770

We carry in stock a good standard grade of pure gum sheet rubber, which is used for a great many purposes. If wanted for press work or any special purpose we will make a special grade, any

quality desired, to order promptly. The standard stock width is 36 inches and we will cut it to any length, according to the sheet desired. Thickness,  $\frac{3}{32}$  to  $\frac{1}{8}$  in.

**★Net Pound \$0.85**

## RAINBOW RED SHEET PACKING



Fig. 2769

For packing flanges or joints against steam, air, hot or cold water. For all saturated steam pressures up to 175 pounds and all hydraulic conditions, such as high-pressure hot and cold water flange joints, cylinder heads, etc. and especially compounded heat-resisting sheet. 36 inches wide. Stocked in four sizes.

Thickness, Inches .....  $\frac{1}{32}$   $\frac{1}{16}$   $\frac{3}{32}$   $\frac{1}{8}$   
Approximate weight, sq. yd., lbs.... 3 6  $\frac{1}{2}$  9  $\frac{3}{4}$  12

**★Net Pound - - - - - \$0.60**

## KING GRAPHITE SHEET PACKING

This well known packing is what is known as oil-proof. It will not vulcanize or get hard very quickly, and always renders good service under either cold water or high pressure steam. It is black, smooth, elastic, and always makes a good joint. 36 in. wide, in stock in three sizes:

Thickness, Inches .....  $\frac{1}{16}$   $\frac{3}{32}$   $\frac{1}{8}$   
Approx. Lbs. to Sq. Yard...  $4\frac{3}{8}$   $6\frac{5}{8}$   $8\frac{3}{4}$

**★Net Pound \$0.85**

100 Pound Lots, One Size and One Shipment - DEDUCT 10%



No. 101. HIGH PRESSURE COMPRESSED SHEET PACKING

For Gas Engine, Steam or Superheat Purposes

A compressed asbestos sheet that will give efficient service at all times and under all conditions, both on high and low pressures.

For gas engines, automobiles, marine engines, turbines or steam plants it has no equal. It will hold saturated or superheated steam and high pressure. It will not pulp in the joints, burn or blow out and requires no following up. It forms readily to uneven flanges and is not affected by heavy vibration.

No. 101 packing is oil proof and also gives excellent service when used for ammonia, gas or compressed air lines. It can be rolled and unrolled,



Fig. No. 2404

and does not dry out, crack or open up. Carried in sheets 50x50, in the following sizes:

Thickness	.... 1/32 in.	1/16 in.	3/32 in.	1/8 in.
Approx. Wt. per Sheet	..... 4 1/2 lbs.	9 lbs.	13 1/2 lbs.	18 lbs.

★ Net Pound ..... 70c

AUTO WIRE WOVEN ASBESTOS GAS ENGINE PACKING



Fig. No. 505

Auto Asbestos Packing is made of woven asbestos fibre, interwoven with fine brass wire, coated on one side with a red, heat-resisting compound, on the other side, black graphite finish, especially adapted for gas and gasoline engine work.



Fig. No. 505

40 in. wide, carried in stock as follows:

Thickness	..... 1/32 in.	1/16 in.
Approx. Wt., Running Yard	.... 4 1/2 lbs.	6 lbs.

★ Net Pound ..... \$0.70

VELLUMOID SHEET PACKING

For Oil, Gasoline, Steam or Water



Fig. No. 3287

The duty of the replacement gasket is to make tight connections which stay tight. Vellumoid is made especially for this work.

Compressible—Just the right amount of compressibility to take care of the irregularities in the flanges.

Tough—Made to stand rough treatment without injury; gaskets cut from Vellumoid do not tear or break.

Durable—Does not deteriorate either in stock or service.

Gaskets—Are easily cut out with a knife, or can be tapped out with a lead or brass hammer. No shellac required.

36 in. wide, carried in stock as follows:

No.	Thickness Inches	Wt. Lbs. Per Sq. Yd.	Price Per Sq. Yd.
3	1/64 (.015)	3/4	\$0.80
5	1/32 (.032)	1 1/2	1.60
6	1/16 (.062)	2 3/8	3.00

Discount { Less than 5 Sq. Yards. 33-1/3% OFF  
{ 5 Square Yards or more 40-10% OFF

ROSE WASHER CUTTERS

Holds the material in place by patented attachment and cuts the washer without damaging the material. Automatic feed, easily adjusted to size. Cuts material, including asbestos, of varying thicknesses.

No. 0—Cuts	3/8 to 2 in....	★ Net Each, \$1.15
No. 1—Cuts	3/4 to 4 1/2 in....	★ Net Each, 3.75
No. 2—Cuts	1 to 10 in....	★ Net Each, 10.00



Fig. No. 1390

STANDARD WASHER CUTTER

Fig. No. 1391

Cuts 3/4 inch to 6 inch.

★ NET EACH \$1.00





**ALENCO SPIRAL ROD PACKING**

Fig. No. 522

Alenco Spiral Rod Packing, another of our own products, is offered to supply the demand for a good rod packing for low and medium pressures at a moderate price. It is especially suitable for the dealer. It is made like all the standard brands of rod packing of good quality duck and rubber friction, thoroughly lubricated with the finest graphite. Packed in 12 ft. coils each in a dust proof box.

**\*NET POUND, \$0.60**

The following list gives the sizes carried in stock and the approximate weight of each box.

Size, Inches	Weight, Lbs. Oz.	Size, Inches	Weight, Lbs. Oz.
$\frac{3}{16}$	- 7	$\frac{5}{8}$	3- 6
$\frac{1}{4}$	-11	$\frac{11}{16}$	4- 3
$\frac{5}{16}$	-15	$\frac{3}{4}$	5-
$\frac{3}{8}$	1- 4	$\frac{13}{16}$	6-
$\frac{7}{16}$	1-12	$\frac{7}{8}$	6-14
$\frac{1}{2}$	2-	$\frac{15}{16}$	7- 8
$\frac{9}{16}$	2-12	1	8-

**MASSASOIT SPIRAL PACKING**

Fig. No. 2407

A special lubricated, high quality, spiral packing, built of straight weight duck, high quality friction, and durable red gum facing. The best packing for high and low pressure, lubricated thoroughly with graphite. Packed in 12 ft. coils in dust proof box. Carried in stock in the following sizes:  $\frac{3}{16}$  in.,  $\frac{1}{4}$  in.,  $\frac{5}{16}$  in.,  $\frac{3}{8}$  in.,  $\frac{7}{16}$  in.,  $\frac{1}{2}$  in.,  $\frac{9}{16}$  in.,  $\frac{5}{8}$  in.,  $\frac{11}{16}$  in.,  $\frac{3}{4}$  in.,  $\frac{13}{16}$  in.,  $\frac{7}{8}$  in., 1 in.

**\*NET POUND, \$0.85****SQUARE DUCK PACKING—PISTON AND HYDRAULIC****FIG. 513. SQUARE PISTON PACKING—COARSE DUCK**

A cold water piston packing that will give splendid satisfaction. The coarse duck used is specially selected for this purpose, and the black friction is thoroughly dependable. Furnished in 12 ft. lengths in all sizes,  $\frac{1}{4}$  inch and upward, by 16ths.

**\*NET POUND, \$0.55****FIG. 515. SQUARE HYDRAULIC PACKING—FINE DUCK**

A grade we highly recommend for either hot or cold water use, but suitable for other purposes as well. Made of fine duck, closely woven, with a high grade white friction which holds the plies strongly together and lessens the tendency of the packing to swell under the action of hot or cold water. 12 ft. lengths, furnished in all sizes from  $\frac{1}{4}$  to 2 inches, by 16ths.

**\*NET POUND, \$0.80****ALENCO RING AND SECTIONAL RING PACKINGS**

The Alenco Ring Packing is intended for a par-



Fig. No. 524



Fig. No. 525

**Instructions in Ordering Ring Packing**

For inside diameter of ring give exact diameter of rod; for outside diameter of ring give exact inside diameter of stuffing box or outside diameter

**COLUMBIA HIGH PRESSURE SPIRAL PACKING**

Fig. No. 523

This is the highest quality of spiral fibre packing that can be produced. It is made from the choicest selection of long fibre asbestos, having incased a high grade red rubber that is treated in the course of manufacture in such a way that it will not readily vulcanize or harden. This packing is lubricated with a specially prepared high grade graphite compound lubricant, which will withstand the most severe service. It is especially adapted for high speed engines, for superheated and high pressure steam. For packing used where the ratchets are running in oil, grease or acids, this packing is not excelled.

Put up in boxes containing 12 lineal feet. The following sizes carried in stock:  $\frac{1}{4}$  in.,  $\frac{5}{16}$  in.,  $\frac{3}{8}$  in.,  $\frac{7}{16}$  in.,  $\frac{1}{2}$  in.,  $\frac{9}{16}$  in.,  $\frac{5}{8}$  in.,  $\frac{11}{16}$  in.,  $\frac{3}{4}$  in.,  $\frac{7}{8}$  in., 1 in.

**\*NET POUND, \$1.10****PEERLESS SPIRAL PACKING**

Fig. No. 518

A very high grade spiral packing, having a red rubber core, wrapped with duck and coated with graphite. This packing will give good service wherever used. Sold in boxes containing 1 lb. and up—weight varies according to size. Furnished in the following sizes:  $\frac{1}{4}$  in.,  $\frac{5}{16}$  in.,  $\frac{3}{8}$  in.,  $\frac{7}{16}$  in.,  $\frac{1}{2}$  in.,  $\frac{5}{8}$  in.,  $\frac{3}{4}$  in.

**\*NET POUND, \$1.15**

Fig. Nos. 513-515

ticular trade who demand the very best in the way of packing. It is made of the best of materials and lubricated by a process which insures long life, durability and service. For piston and valve rods of all classes of engines, stationary, traction, marine engines and pumps.

No. 524—Alenco Ring Packing.  $1\frac{1}{4}$  I. D. and larger.

**\*NET POUND, \$1.70**

No. 525—Alenco Sectional Ring Packing.  $1\frac{1}{4}$  I. D. and smaller.

**PRICE ON APPLICATION**

of gland. In taking these measurements caution should be observed to see that they are exact.



## TUBULAR GASKET PACKING

With a box of this packing of the correct diameter, an engineer can make a gasket of any size or shape, avoiding the necessity of maintaining a stock of gaskets on hand. This gasket tubing is packed with a quantity of connecting pins and adhesive tape for joining the ends.  $\frac{1}{4}$  and  $\frac{3}{8}$  in. sizes are used for pipe unions;  $\frac{1}{2}$  in. for hand hole plates;  $\frac{3}{4}$  and  $\frac{1}{2}$  in. for manhole plates.



### MEPHISTO BRAND

Fig. No. 509

Mephisto Gasket Tubing is a serviceable variety of this class of packing. It is made of high grade stock, compounded to withstand the action of steam. Carried in stock in the following sizes:  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$  and  $\frac{3}{4}$  inches.

★NET POUND, \$0.70

### ECLIPSE BRAND

Fig. No. 510

Made of high grade packing, will not harden under high temperature nor blow out under high pressure. Soft metal connecting tubes and tape furnished with each length. Stocked in  $\frac{3}{8}$  in.,  $\frac{1}{2}$  in.,  $\frac{5}{8}$  in. and  $\frac{3}{4}$  in. sizes.

★NET POUND, \$0.85

### JENKINS BROS.

Fig. No. 511

An excellent quality of unvulcanized rubber packing, soft and flexible, yet strong. Durable, does not rot nor burn out, will stand high temperatures as well as high pressure. Stocked in  $\frac{3}{8}$  in.,  $\frac{1}{2}$  in.,  $\frac{5}{8}$  in. and  $\frac{3}{4}$  in. sizes.

★NET POUND, \$1.15

## GARLOCK PACKING

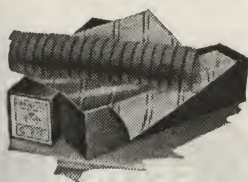


Fig. No. 3286

Garlock Packings are made of a superior grade of rubber and duck, properly lubricated, for both high and low pressures.

### ★NET PRICES PER POUND

No.	Net, Lb.
777	Extra Spiral Packing, $\frac{1}{4}$ in. and larger for Steam. \$1.10
778	Extra Spiral Packing, $\frac{1}{4}$ in. and larger for Ammonia. \$1.80
834	Extra Spiral Packing Ring form for Ammonia. \$1.80
336	Extra Sectional Ring Packing for Steam. \$1.80
337	Extra Sectional Ring Packing for Ammonia. \$1.80
150	High Pressure Spiral Packing. \$2.10
200	High Pressure Ring Form Packing. \$2.50

## ALLEN'S FLAX PACKING

Fig. No. 303



### EMERGENCY BRAND

Emergency Brand is of fair quality. It is very moderate in price and will give as good service as any competitive grade. We offer it to those whose trade demands a low priced article, but we cannot guarantee it.

★ NET POUND \$0.65

### ARROW BRAND

None better: made of pure, long fibred flax and lubricated with the finest cake tallow. Recommended for hard service on hydraulic elevators, on water ends of steam pumps and other places where the service is severe.

★ NET POUND \$0.85

## AUTOMOBILE PUMP PACKING

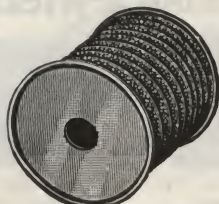


Fig. No. 3225

A specially treated flax packing which will not disintegrate from the action of water. The use of this packing on automobile pumps will prevent the clogging of the water circulating system, which is a common complaint when asbestos or candle wicking is used.

This packing is made from long strand flax, treated with carefully compounded lubricants, twisted hard and graphited with high grade plumbago.

Small Box .....★NET BOX, \$0.30

Medium Box .....★NET BOX, \$ .50

Large Box .....★NET BOX, \$ .70

## ALLEN ANTI-FRICTION METALLIC PACKING



Fig. 3998

For packing all types of pumps, such as steam, oil, gas, air, water, and chemical pumps. Soft and pliable, easy to apply, and becomes a solid metal bearing. It is a metallic packing of metal alloy (non-frictional) similar to a piece of bearing alloy about  $\frac{1}{4}$  inch diameter, thin side walls with a flax core, impregnated with graphite and oil. When a pump is packed it forms its own metallic bearing and conforms to the high and low spots in scored pump shafts so as to make a tight metallic bearing that will stop the most stubborn pump leaks. To apply wind on top of initial winding, tighten stuffing box, and a leak-proof bearing is the result. 3 feet to a box.

1 to 11.....★NET 3 FEET, \$0.30

12 or more.★NET 3 FEET, \$0.20

## FLEXIBLE SPIRAL METALLIC PACKING

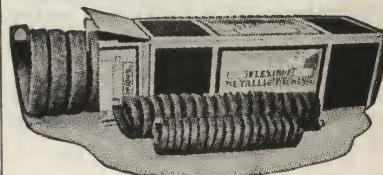


Fig. No. 3291

Manufactured of thin individual strips of compressed frictionless lubricated flexible bearing metal with a non-vulcanizing resilient backing, encased in a threaded jacket. This backing has a wedging action, automatically tightens as the pressure builds up, absorbs vibration and inequalities, yet can be easily removed when ready to repack. Not affected by steam up to 550°, excellent for valve stems, engine rods, throttle valves, header valves. Suitable for hydraulic pressures up to 2,000 lbs.; for accumulators, plungers, rams, and boiler feed pumps. Also for air compressors, air brake sets, acid and alkali pumps.

Made in all sizes from  $\frac{1}{8}$  to 1 in., by 16ths. Packed 1 coil in box, approximately 15 feet in box, weights varying according to size. Sold only by the box.

★ NET POUND, \$2.00

## RAWHIDE HYDRAULIC PACKING



Fig. No. 520

A packing made from strips of rawhide, braided round or square, soft and pliable, and very useful for hydraulic purposes.

The following table shows the sizes carried in stock and the approximate weight per 100 feet.

Diam.	Wt.	Diam.	Wt.
$\frac{1}{4}$ in.	3 $\frac{1}{2}$ lbs.	$\frac{7}{8}$ in.	37 lbs.
$\frac{5}{16}$ in.	4 $\frac{1}{4}$ lbs.	1 in.	46 lbs.
$\frac{3}{8}$ in.	6 $\frac{3}{4}$ lbs.	1 $\frac{1}{8}$ in.	58 lbs.
$\frac{7}{16}$ in.	7 $\frac{3}{4}$ lbs.	1 $\frac{1}{4}$ in.	71 lbs.
$\frac{1}{2}$ in.	12 lbs.	1 $\frac{3}{8}$ in.	84 lbs.
$\frac{5}{8}$ in.	18 lbs.	1 $\frac{1}{2}$ in.	98 lbs.
$\frac{3}{4}$ in.	27 $\frac{1}{2}$ lbs.		

★ NET POUND, \$2.75



## GRAPHOBESTOS VALVE STEM PACKING



Fig. No. 550

A first class asbestos wick packing for valves and high pressure use. This packing is not a competitive grade of goods, but made expressly for trade that desire the best that can be had in the way of packings. Each strand is treated separately with a high grade graphite lubricant and is twisted after being thoroughly lubricated. This packing is water and steam proof. It packs closely and on the larger size, should it so be desired, the strands can be separated and used in smaller stuffing boxes. Carried in stock in the sizes shown:

### 1 Pound Spools

Stock Sizes:  $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$  in.

★ NET SPOOL, \$1.00  
5 or more...★ NET SPOOL, \$0.90

### $\frac{1}{4}$ Pound Spools

Stock Sizes:  $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$  in.

1 to 9.....★ NET SPOOL, \$0.30

## GRAPHITE



Fig. No. 527 Fig. No. 2408

Fig. 527. No. 1

**Dixon's Coarse Flake Graphite.** Selected, smooth and durable. Not affected by heat, cold, steam, acids or alkalis.

### ★ NET PER PACKAGE

Can, Pounds ..	$\frac{1}{2}$	1	5	10
Mfrs. No. ....	631	632	633	634
★ Net Each....	\$0.30	\$0.45	\$2.00	\$3.75

Fig. 528. Mfrs. 635

**Dixon's Powdered Graphite.** A selected grade of pure powdered graphite ground to extreme fineness.

### ★ NET PER PACKAGE

Can, Pounds ..	1	5	10
★ Net Each .....	\$0.75	\$3.25	\$6.50

Fig. 2408

**Mexican Lubricating Graphite.** Mfrs. No. 205. Air floated to an impalpably fine powder, absolutely free from grit. More adhesive than flake graphite and remains suspended in oil longer.

### ★ NET PER PACKAGE

Can, Pounds ..	1	5	10
★ Net Each .....	\$0.35	\$1.50	\$2.85

## ASBESTOS WICK AND ROPE PACKING



Fig. No. 516



Fig. No. 517

### WICK PACKING—Fig. No. 516

Made from long pure, white, asbestos fibre, about  $\frac{1}{4}$  inch in diameter, wound in balls of  $\frac{1}{4}$  lb.,  $\frac{1}{2}$  lb., and 1 lb.

### ★ NET POUND, \$0.28

### ROPE PACKING—Fig. No. 517

Is made from same stock as wick packing, in sizes from  $\frac{1}{2}$  in. to  $1\frac{1}{2}$  in. in diameter. 25 lbs. in bale, no less sold.

### ★ NET POUND, \$0.35

## PACKING & WICKING

Fig. No. 531  
HempFig. No. 2409  
Wicking

### Hemp Packing

ITALIAN. Fig. 531-I

### ★ NET POUND

1 to 24 pounds .....\$0.40

25 pound bales .....\$0.38

AMERICAN. Fig. 531-A

### ★ NET POUND

1 to 24 pounds .....\$0.34

25 pound bales .....\$0.32

### Candle Wicking

For packing valve stuffing boxes. 8 balls to the pound. 5 lbs. (40 balls) in cloth bag.

### ★ NET POUND

Standard Grade .....\$0.29

Extra Grade .....\$0.38

## DANIELS P. P. P. PACKING

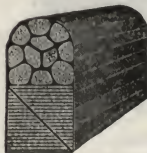


Fig. No. 526

### No. Q 182, Regular

For steam pressures up to 100 pounds ordinary water pressures, warm or cold, low ammonia pressure, valve stems. Sold only in boxes containing approximately 5 to 6 pounds. Furnished in the following sizes:  $\frac{1}{4}$  in.,  $\frac{5}{16}$  in.,  $\frac{3}{8}$  in.,  $\frac{1}{2}$  in.,  $\frac{5}{8}$  in.,  $\frac{3}{4}$  in.,  $1\frac{1}{8}$  in.,  $\frac{1}{2}$  in., 1 in.

### ★ NET POUND, \$1.00

### No. Q 183, High Pressure

For steam pressures from 100 to 250 pounds. Sold only in boxes weighing approximately 5 to 6 pounds. Furnished in the following sizes:  $\frac{1}{4}$  in.,  $\frac{5}{16}$  in.,  $\frac{3}{8}$  in.,  $\frac{1}{2}$  in.,  $\frac{5}{8}$  in.,  $\frac{3}{4}$  in.

### ★ NET POUND, \$1.25

## PALMETTO TWIST PACKING



Fig. 519

An ideal packing for valve stems, blow-off cocks, injectors, etc. Made of heat resisting materials impregnated with lubricant to keep it soft and pliable. Retains its packing qualities and gives long service. By unstranding, different size valves can be packed from one size of packing. 1 pound on tin spool.

Size, inches...  $\frac{1}{8}$   $\frac{3}{16}$   $\frac{1}{4}$   $\frac{5}{16}$   $\frac{3}{8}$   $\frac{1}{2}$

Ft., Lb. spool... 74 57 33 20 13 10 7

### ★ NET POUND, \$1.80

## PALMETTO BRAIDED PISTON PACKING

Self Lubricating



Fig. 2419—Square Braided

Designed to meet the exacting conditions of superheated steam, compressed air. Made of material that does not char and does not get hard in service because of the superior method of lubrication.

Size, Inch	Spool, Feet	Box, Feet	Size, Inch	Box, Feet
1-1/8	62	...	1-1/8	15
3/16	33	...	1-1/4	13
1/4	19	104	1-3/8	11
5/16	15	82	1-1/2	9
3/8	9	53	1-5/8	8
7/16	7	39	1-3/4	7
1/2	5	31	1-7/8	6
9/16	..	25	2	4
5/8	..	20		
11/16	..	16		
3/4	..	14		
13/16	..	12		
7/8	..	11		
15/16	..	10		
1	..	8		

### ★ NET POUND, \$1.80

## SELDEN PACKINGS



### Canvas Core

Fig. 521C

Size, Inch	Approx. Feet	Weight, Ounces	★ NET COIL
1/8	12	2	\$0.45
3/16	11	3	\$0.55
1/4	12	6	\$0.75

### Rubber Core

Fig. 521R

Size, Inch	Approx. Feet	Weight, Ounces	★ NET COIL
1/4	12	8	\$1.00
5/16	12	10	\$1.25
3/8	12	14	\$1.75
7/16	12	15-1/2	\$2.00
1/2	12	26	\$3.25



## FAUCET OR FULLER BALLS

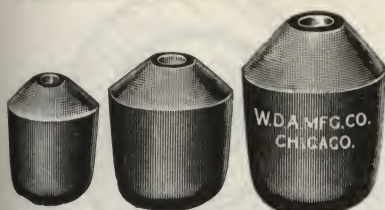


Fig. 543

Be sure to specify size.  
Black, for cold water,  $\frac{1}{2}$ ,  $\frac{5}{8}$  or  $\frac{3}{4}$  inch ... ★ NET POUND, \$0.55  
Red, for hot water,  $\frac{1}{2}$ ,  $\frac{5}{8}$  or  $\frac{3}{4}$  inch ... ★ NET POUND, \$0.65

## SPECIAL GRAPHITE COMBINATION FAUCET OR FULLER BALLS



Fig. No. 2410

High quality. Very popular with the trade who want the best. Made of a special compound and treated with graphite which makes it very durable. Gives equally good service on hot or cold water,  $\frac{1}{2}$ ,  $\frac{5}{8}$  or  $\frac{3}{4}$  inch. Be sure to specify size.

★ NET POUND, \$1.00

## "BLUE BELL" COMBINATION FAUCET OR FULLER BALLS



Fig. No. 2773

Made of blue rubber, suitable for either cold or hot water. Thoroughly tested and strictly high grade. Have low specific gravity. In 1 lb. packages.  $\frac{1}{2}$  in., about 94 to lb.  $\frac{5}{8}$  in., about 67 to lb. Be sure to specify size.

 $\frac{1}{2}$  or  $\frac{5}{8}$  in. ★ NET POUND, \$1.10

## GENUINE SLOAN VALVE DIAPHRAGMS AND AUXILIARY VALVE SEAT



Fig. 3961 (A26A)

Diaphragm for Sloan Valve  $\frac{3}{4}$  inch O.D. 1 inch hole.  $\frac{1}{2}$  inch thick.

★ NET EACH, 45c

Fig. 3962 (A17)

Auxiliary Valve Seat 1 1/2 inch O.D.  $\frac{5}{8}$  inch hole.  $\frac{1}{2}$  inch thick.

★ NET EACH, 4c

## FAUCET OR BIBB WASHERS FOR HOT OR COLD WATER

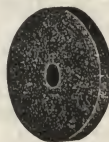


Fig. 542

## ★ NET 100 IN BOX

Size Inch	O.S. Diam.	Blue Asbestos	Tuff Willow	Fibre
$\frac{1}{4}$	$\frac{9}{16}$	\$0.52	\$1.00	\$0.60
$\frac{3}{8}$	$\frac{5}{8}$	\$0.67	\$1.17	\$0.70
$\frac{3}{8}$ lg.	$\frac{11}{16}$	\$0.80	\$1.25	\$0.72
$\frac{1}{2}$	$\frac{3}{4}$	\$0.87	\$1.33	\$0.75
$\frac{1}{2}$ lg.	$\frac{25}{32}$	\$0.97	\$1.47	\$0.78
$\frac{5}{8}$	$\frac{13}{16}$	\$1.04	\$1.66	\$0.80
$\frac{5}{8}$ lg.	$\frac{15}{16}$	\$1.25	\$2.33	\$0.95
$\frac{3}{4}$	$\frac{17}{16}$	\$1.67	\$2.82	\$1.25

100 Assorted Tuff Willow Flat.

★ NET CAN, \$1.41

## BEVELED FAUCET OR BIBB WASHER



Fig. 2413

For hot or cold water. Beveled edge makes it seat perfectly all the time.

## ★ NET 100 IN BOX

Size Inch	O.S. Diam.	Graphite- Hard	Tuff Willow	Blue- Asbestos
$\frac{1}{4}$	$\frac{9}{16}$	\$0.80	\$1.15	\$0.70
$\frac{3}{8}$	$\frac{5}{8}$	\$0.90	\$1.30	\$0.80
$\frac{3}{8}$ lg.	$\frac{11}{16}$	\$0.98	\$1.40	\$0.88
$\frac{1}{2}$	$\frac{3}{4}$	\$1.05	\$1.50	\$1.00
$\frac{1}{2}$ lg.	$\frac{25}{32}$	\$1.13	\$1.65	\$1.10
$\frac{5}{8}$	$\frac{13}{16}$	\$1.35	\$1.80	\$1.25
$\frac{5}{8}$ lg.	$\frac{27}{32}$	\$1.50	\$2.00	\$1.35
$\frac{3}{4}$	$\frac{15}{16}$	\$1.85	\$2.50	\$1.50
1	$\frac{17}{16}$	....	\$3.00	\$2.00

100 Assorted Tuff Willow Beveled.

★ NET CAN, \$1.30

## BIBB WASHERS

For Chicago Faucets

Fig. 3960 ..... ★ NET 100, \$1.35

## RED PURE GUM PIPE UNION GASKETS



Fig. 551

Pipe Union Size	Inside Diameter Inches	Outside Diameter Inches	Thickness Inches
$\frac{1}{8}$	$\frac{15}{32}$	$\frac{25}{32}$	$\frac{3}{32}$
$\frac{1}{4}$	$\frac{17}{32}$	$\frac{29}{32}$	$\frac{3}{32}$
$\frac{3}{8}$	$\frac{21}{32}$	$\frac{11}{16}$	$\frac{3}{32}$
$\frac{1}{2}$	$\frac{13}{16}$	$1 \frac{1}{4}$	$\frac{3}{32}$
$\frac{3}{4}$	1	$1 \frac{1}{2}$	$\frac{3}{32}$
1	$1 \frac{1}{4}$	$1 \frac{27}{32}$	$\frac{3}{32}$
$1 \frac{1}{4}$	$1 \frac{19}{32}$	$2 \frac{1}{8}$	$\frac{3}{32}$
$1 \frac{1}{2}$	$1 \frac{27}{32}$	$2 \frac{15}{32}$	$\frac{3}{32}$
2	$2 \frac{5}{16}$	$3 \frac{1}{32}$	$\frac{3}{32}$
$2 \frac{1}{2}$	$2 \frac{3}{4}$	$3 \frac{5}{8}$	$\frac{3}{32}$

★ NET POUND BOX, \$0.72

## RUBBER DIAPHRAGMS FOR TRENCH PUMPS Edson Pattern



Fig. No. 537.

For the Edson Suction Pump.

No.	Outside Diam.	★ NET EACH
1	11 in.	\$1.35
2	13 $\frac{1}{8}$ in.	\$1.65
3	14 $\frac{3}{4}$ in.	\$2.35

## Loud Pattern



Fig. No. 536.

For the Loud Suction Pump.

No.	Outside Diam.	★ NET EACH
1	9 $\frac{3}{4}$ in.	\$1.30
2	13 in.	\$1.55

## RUBBER DIAPHRAGM FOR STEAM REGULATORS



Fig. 538

Outside Diameter Inches	For Low Pressure ★ NET EACH	For High Pressure ★ NET EACH
6	\$0.26	\$0.42
7	\$0.30	\$0.49
8	\$0.35	\$0.60
9	\$0.42	\$0.77
10	\$0.55	\$0.97

## SYPHON VALVE WASHERS Feather Edge



Fig. No. 555

## ★ NET DOZEN

$1 \frac{1}{4}$ inch.....	\$0.60
$1 \frac{1}{2}$ inch.....	\$0.72
$1 \frac{3}{4}$ inch.....	\$0.84
2 inch.....	\$0.96

## SYPHON PACKERS



Fig. No. 2414

Packed 1 dozen in a box.

No.	Inches	★ NET DOZEN
1	$1 \frac{7}{8} \times 3 \frac{3}{16}$	\$1.00
2	$1 \frac{1}{2} \times 3 \frac{1}{4}$	\$1.25
3	$2 \frac{1}{16} \times 3 \frac{3}{16}$	\$1.50

★ NET  
COIL  
\$0.45  
\$0.55  
\$0.75

★ NET  
COIL  
\$1.00  
\$1.25  
\$1.75  
\$2.00  
\$3.25





Fig. No. 2080

### Sink Plugs

★ NET DOZEN

1 inch.....	\$0.36
1 1/8 inch.....	\$0.44
1 1/4 inch.....	\$0.48
1 3/8 inch.....	\$0.52
1 1/2 inch.....	\$0.60
1 5/8 inch.....	\$0.75
1 3/4 inch.....	\$0.80
2 inch.....	\$0.96

## BASIN PLUGS AND STOPPERS

We carry in stock only one grade of Basin Plug, which is of a good quality, one that will stand and stock well and not get hard. While the price is extremely low, you are assured in receiving good, fresh first class goods.

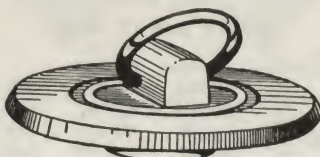


Fig. No. 2081

### Suction Stoppers

Packed 1 dozen in a box.  
Basin size..★ NET DOZEN, \$0.96  
Bath size..★ NET DOZEN, \$1.08

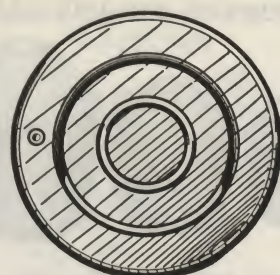


Fig. No. 548

### Sink Stoppers

The suction keeps it in place. This rubber stopper can be placed over the sieve or screen in sink and closes perforations so that the sink can be filled with water and used as a pan or tub for washing dishes, etc.

★ NET DOZEN, \$1.20

## ANTI-SPLASHER



Fig. No. 200-S

Made of red rubber. Fits on faucet.  
No. 200. 1/2 in. } ★ NET DOZEN, \$0.60  
No. 203. 3/4 in. }

## DANDY CLOSET CONNECTION



Fig. No. 2086

Without Center Extension

Packed 1 dozen in a box.  
1 1/4 inch...★ NET DOZEN, \$1.20

## OHLIGHER CONNECTIONS



Fig. 2089

Packed 1 dozen in a box.

1 1/4 inch...★ NET DOZEN, \$0.96  
1 1/2 inch...★ NET DOZEN, \$1.20

## SINK GASKETS



Fig. No. 547

Standard size. Packed 1 doz. in box.....★ NET DOZEN, \$0.72

## RUBBER HOSE WASHERS



### FOR GARDEN HOSE COUPLINGS

Fig. 2416G

3/4 Inch Fits 1/2, 5/8 and 3/4 Inch Couplings.

Coupling Size,	Inside Diameter	Outside Diameter	Thickness Inches
3/4	2 1/32	1 1/2	1/8

1 Pound Box.....★ NET LB., \$0.55  
2 to 4 Pounds.....★ NET LB., \$0.50  
5 or More Pounds...★ NET LB., \$0.40  
Box of 12, 24 boxes in Carton.

★ NET CARTON, \$0.80

### FOR COMMON COUPLINGS, I.P.T.

Fig. 2416C

Coupling Size,	Inside Diameter	Outside Diameter	Thickness Inches
1	7/8	1 1/4	1/8
1 1/4	1 1/16	1 5/8	1/8
1 1/2	1 3/4	1 7/8	1/8
2	1 3/4	2	3/16
2 1/2	2 3/16	2 3/4	3/16
3	2 3/4	3 3/8	3/16
4	3 3/8	4 1/2	3/16

1 to 4 Pounds.....★ NET LB., \$0.90  
5 Pounds or More...★ NET LB., \$0.70

### FOR EXPANSION RING COUPLINGS

Fig. 2416E

Coupling Size,	Inside Diameter	Outside Diameter	Thickness Inches
1 1/4	1 1/4	1 11/16	1/8
1 1/2	1 1/2	2	3/16
2	2	2 1/2	3/16
2 1/2	2 1/2	3 1/8	3/16
2 3/4	2 3/4	3 1/4	3/16
3	3	3 3/4	3/16

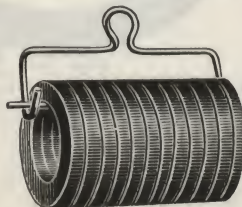
1 to 4 Pounds.....★ NET LB., \$0.90  
5 Pounds or More...★ NET LB., \$0.70

## HOSE WASHERS ON CLIP

Fig. 5167

12 garden hose washers on wire clip.

★ NET EACH \$0.06  
★ NET DOZEN \$0.55



## CLOSET SPUD WASHERS Flanged



Fig. No. 2085

Packed one dozen in box.

★ NET DOZEN

1 1/4 inch.....\$0.60  
1 1/2 inch.....\$0.72  
2 inch.....\$0.84

## WOLFF WASTE WASHERS



Fig. No. 2088

Packed 1 dozen in a box.

Small, for basin.

★ NET DOZEN, \$0.96

Large, for bath.

★ NET DOZEN, \$1.44

## IDEAL WASTE WASHERS



Fig. No. 2087

Packed 1 dozen in a box.

★ NET DOZEN

1 inch.....\$0.36  
1 1/4 inch.....\$0.48  
1 1/2 inch.....\$0.60

## MACK BASIN GASKETS

Fig. No. 546

Standard size. Packed 1 doz. in box.....★ NET DOZEN, \$0.48





## ASBESTOS GASKETS

## SIZES STOCKED

## Other Sizes Can Be Supplied

Inside Size	Flange Inches	Inside Size	Flange Inches
<b><math>\frac{3}{16}</math> INCH THICK</b>			
2 x 3	$\frac{1}{2}$	3 x 3	$\frac{1}{2}$
2 x $3\frac{1}{4}$	$\frac{1}{2}$	3 x 4	$\frac{1}{2}$
$2\frac{1}{2}$ x $2\frac{1}{2}$	$\frac{1}{2}$	3 x $4\frac{1}{2}$	$\frac{1}{2}$
$2\frac{1}{2}$ x 3	$\frac{1}{2}$	$3\frac{1}{2}$ x $3\frac{1}{2}$	$\frac{5}{8}$
$2\frac{1}{2}$ x $3\frac{1}{4}$	$\frac{1}{2}$	$3\frac{1}{2}$ x $4\frac{1}{2}$	$\frac{5}{8}$
$2\frac{1}{2}$ x $3\frac{1}{2}$	$\frac{1}{2}$	$3\frac{1}{2}$ x 5	$\frac{5}{8}$
$2\frac{1}{2}$ x $3\frac{3}{4}$	$\frac{1}{2}$	4 x 5	$\frac{5}{8}$
$2\frac{1}{2}$ x 4	$\frac{1}{2}$	4 x 6	$\frac{5}{8}$
$2\frac{3}{4}$ x $3\frac{3}{4}$	$\frac{1}{2}$	5 x 7	$\frac{3}{4}$
$2\frac{3}{4}$ x $3\frac{7}{8}$	$\frac{1}{2}$	6 x 8	$\frac{3}{4}$
$2\frac{3}{4}$ x $4\frac{1}{2}$	$\frac{1}{2}$		

 **$\frac{1}{4}$  INCH THICK**

9 x 15	1	10 x $15\frac{1}{2}$	1
9 x 16	1	10 x 16	1
10 x 14	1	11 x 14	1
10 x 15	1	11 x 15	1
$10\frac{1}{2}$ x 15	1	11 x $15\frac{1}{4}$	1

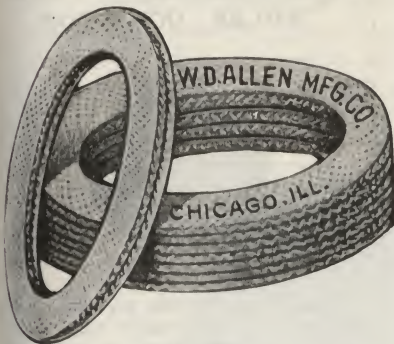


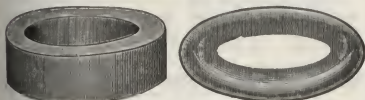
Fig. 557

A very high grade of folded asbestos, cut from a solid piece of long fiber asbestos cloth of the finest quality.

**SPECIFY** the inside dimensions and the size of the flange.

Gaskets up to 6 inch inside diameter. . . . . ★ **NET POUND, \$1.15**  
Gaskets 6 inch inside diameter and larger. . . . . ★ **NET POUND, \$1.10**

## GAUGE GLASS WASHERS

Fig. No. 1231  
Square EdgeFig. No. 1231-A  
Round Edge

$\frac{1}{2}$ ,  $\frac{3}{8}$ , or  $\frac{1}{4}$  in. Specify size wanted  
Square edge, black rubber.

★ **NET POUND, \$0.80**

Round edge, red rubber.

★ **NET POUND, 1.50**Fig. No. 1231-B  
square edge  
black rubber.

Size, in.	O. D.	Thickness,	Net, Lb.
$\frac{1}{4}$	$\frac{1}{2}$ in.	$\frac{3}{16}$ in.	\$1.00
$\frac{3}{8}$	$1\frac{1}{4}$ in.	$\frac{3}{16}$ in.	1.00
$\frac{1}{2}$	$1\frac{1}{2}$ in.	$\frac{3}{16}$ in.	1.00

## SLIP JOINT WASHERS

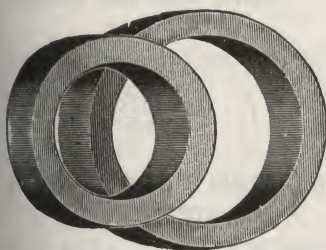


Fig. No. 2082

All sizes are  $\frac{3}{16}$  inch thick.

## Size of Washers

No.	Size of Slip Joint, Inches	Inside Diam., Inches	Outside Diam., Inches
10	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{8}$
20	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
30	$\frac{3}{4}$	$\frac{3}{4}$	1
40	1	1	$1\frac{1}{4}$
50	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{2}$
60	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{5}{8}$
70	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{4}$
80	2	2	$2\frac{1}{4}$

★ **NET POUND, \$0.96**

## FIBRE UNION WASHERS

For Bath Faucets or Cocks

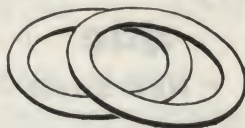


Fig. No. 2415

$1\frac{3}{16}$  inches, O. D.

★ **NET DOZEN, \$0.30**

## BAR BUMPER

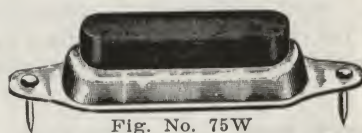


Fig. No. 75W

Black rubber bar bumper,  $1\frac{1}{8}$  in. long, complete with nickel plated escutcheon and pins. 25 in box, no less sold.

★ **NET 100, \$5.50**

## HALF ROUND SEAT HINGE BUMPERS



Fig. 2083

$1\frac{1}{4}$  inch diameter.  $\frac{7}{16}$  inch high.  
 $\frac{7}{16}$  inch hole. 1 dozen in box.

★ **NET DOZEN, \$0.30**

## OBLONG SEAT BUMPER



Fig. No. 2418

White rubber,  $2\frac{1}{8}$  in. long,  $\frac{1}{2}$  in. wide,  $\frac{3}{8}$  in. high. 1 doz. in box. . . . . ★ **NET DOZEN, \$0.72**

## RUBBER GASKETS AND RINGS



Fig. No. 556

For manhole and hand-hole plates, cylinder heads, steam chests, etc. Any size or shape can be furnished on receipt of specifications.

## PRICE ON APPLICATION

## TACK BUMPERS



Fig. No. 559A

Rubber headed tacks to soften the contact of two hard surfaces coming together, and deaden the noise.

★ **NET GROSS**

Diameter	White	Black
$\frac{3}{8}$ inch	\$0.96	\$0.80
$\frac{1}{2}$ inch	\$1.08	\$0.84
$\frac{5}{8}$ inch	\$1.20	\$0.96
$\frac{3}{4}$ inch	\$2.20	\$1.50

## SLOTTED SCREW BUMPERS



Fig. No. 559B

With screws through center of the rubber bumper.

★ **NET GROSS**

Diameter	White	Black
$\frac{3}{4}$ inch	\$2.20	\$2.00
$\frac{7}{8}$ inch	\$2.75	\$2.50
1 inch	\$2.95	\$2.75

## CRUTCH AND CHAIR TIPS



Fig. No. 559C

For use on crutches and chair legs. Corrugated inside to take hold and stay where placed.

	Diameter	Length	★ NET DOZEN
No. 17.	$\frac{3}{8}$ inch	$1\frac{1}{8}$ inch	\$0.60
No. 18.	$\frac{3}{4}$ inch	$1\frac{1}{8}$ inch	\$0.72
No. 19.	$\frac{7}{8}$ inch	$1\frac{1}{4}$ inch	\$0.84
No. 20.	1 inch	$1\frac{1}{2}$ inch	\$0.96





Fig. No. 553B

Now furnished with threaded neck and handle as shown. Handle cannot come loose. The Alenco Force Cup is our original design. As you will note from the illustration, it is a different type from the old style, has a powerful suction, and is made of very high grade rubber that will not get hard. Complete with handle.

**4½ INCH RED****35c**

★ NET EACH

**5½ INCH RED****40c**

★ NET EACH

**CHOCOLATE COLORED FORCE CUPS****LOW PRICES!****GOOD QUALITY!**

Fig. 4208

High threaded neck. This force cup is made from a good grade chocolate colored red rubber. Complete with a 30 inch threaded handle finished in red enamel.

**4½ INCH SIZE****25c**

★ NET EACH

**5½ INCH SIZE****30c**

★ NET EACH

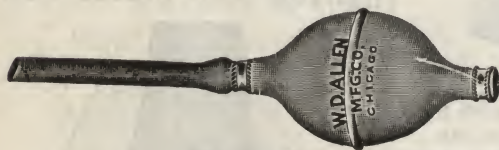
**RUBBER FURNACE BULBS**

Fig. No. 2481

A good high grade red rubber bulb, with 2¼-inch length of heavy red tubing. This bulb is supplied with high grade metal valves.

★ NET EACH, \$0.30

**RUBBER ELBOWS**

Fig. No. 554

Superior quality, with nickel plated fittings.

1¼-inch .....★ NET EACH, \$0.34

1½-inch .....★ NET EACH, \$0.80

**EXTRA QUALITY TANK BULBS—CONE TOP**

Fig. No. 2482

These tank bulbs are one piece, made of an especially high grade rubber, which is very soft and pliable. Will seat perfectly and are very durable.

## ★ NET EACH BULB

2 -inch	.....	\$0.18
2 ¼-inch	.....	\$ .22
2 ½-inch	.....	\$ .26
2 ¾-inch	.....	\$ .28
3 -inch	.....	\$ .35

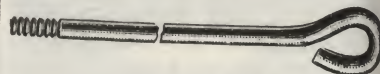
**WIRES FOR TANK BULBS**

Fig. No. 2483

Threaded one end.

Wire	Length Inches	★ NET DOZEN	★ NET 100
Bulb	4 ½	\$0.18	\$1.00
Upper	9	\$0.36	\$2.00

**TANK FLOAT RODS**

Fig. 4472

Threaded both ends. Brass.

Size Inch	★ NET DOZEN	★ NET 100
8	\$0.60	\$3.50
10	\$0.72	\$4.00

**TANK REFILL TUBE**

Fig. 4473

Copper tube, threaded one end.

Size Inch	★ NET DOZEN	★ NET 100
9	\$0.96	\$6.00

**ALENCO PURE RUBBER CEMENT**

Fig. No. 2421

Easily applied and can be thinned down by the addition of gasoline, benzine or naphtha. Especially recommended for use when attaching couplings to rubber hose as it facilitates the introduction of the couplings and insures a tight connection. Friction top cans.

Full quart cans.

★ NET EACH, \$0.90

4 ounce bottle ★ NET EACH, \$0.18



# CORRUGATED RUBBER MATTING

Extensively used in public buildings, schools, hotels, etc. For protecting stairs and carpets. For covering floors to deaden noise. It prevents accidents by slipping. For use in places exposed to wet and slush.  $\frac{1}{8}$  inch thick. 36 inch width. Approximately  $7\frac{1}{2}$  pounds to the square yard.

24 and 30 inch widths can be furnished promptly. Special widths up to 48 inches wide can be made to order.



Fig. 572

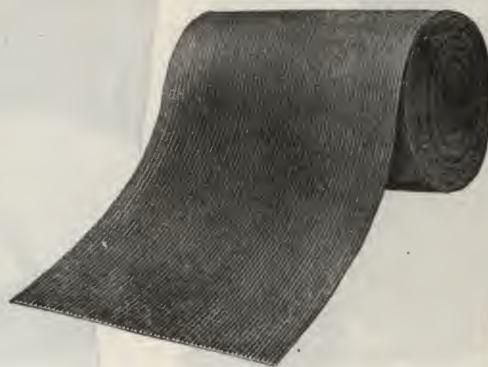


Fig. 573

## BLACK

★NET SQUARE YARD, \$1.30

Lots of 25 Yards in Roll..★NET SQUARE YARD, \$1.00

## BROWN

★NET SQUARE YARD, \$1.40

Lots of 25 Yards in Roll..★NET SQUARE YARD, \$1.10

## PERFORATED RUBBER MATS

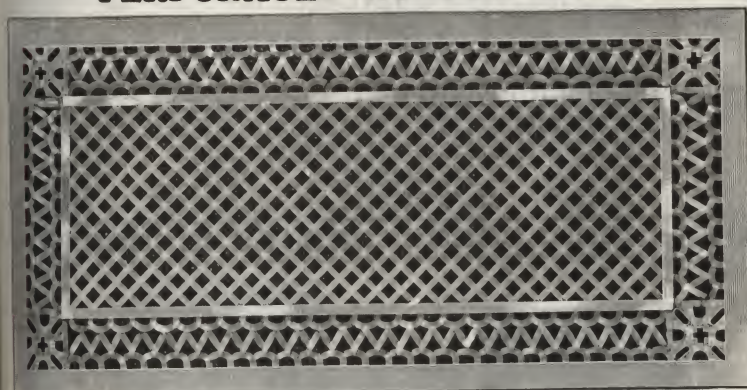


Fig. No. 571

Our perforated mats, unless abused, will last for years. They lie flat because of their weight and do not get out of place. Dirt can be easily removed by lifting up the mat.

$\frac{1}{4}$  inch thickness.....★NET SQUARE FOOT, \$0.83  
 $\frac{3}{8}$  inch thickness.....★NET SQUARE FOOT, \$1.10

### MATS WITH LETTERING

We can make any special design or letter, such as you may submit, or just ordinary lettering. Specify size of mat wanted. Prices on application.

## PERFORATED RUBBER DOOR MATS

18 by 30 inches. The colors are surefast and fade-proof. Only high quality, pure gum rubber is used. The mats lie flat, are thin and can be easily cleaned.

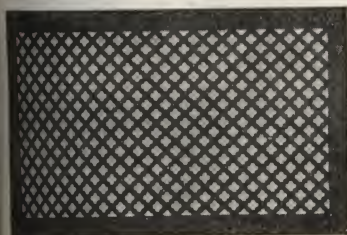


Fig. 4548

Color	LIST EACH
Black .....	\$1.25
Mahogany .....	\$1.50
White .....	\$2.00
Evergreen .....	\$2.00
Rust .....	\$2.00

### DISCOUNTS—FIG.

1 to 5 .....	25% OFF
6 to 11 .....	30% OFF
12 or More .....	35% OFF

## SWITCHBOARD RUBBER MATS



**SAFETY FIRST**

Fig. No. 3030

For use in front of switchboard to insure protection from short circuits, etc.  $\frac{1}{4}$  in. thick, will resist 25,000 volts with a safety factor of 25%.  $\frac{3}{8}$  in. thick, will resist 15,000 volts. Stock size, 36 in. wide. Other widths and thicknesses made to order.

Thickness Inches	Width Inches	★ Net Per Square Yard
$\frac{1}{4}$	36	\$3.25
$\frac{3}{8}$	36	\$2.75



## "ALENCO" RUBBER BOOTS

**Dependable!  
Reliable!  
Comfortable!**



These boots will give you the greatest economy in service, and are thoroughly reliable and sturdy for all general conditions. Extreme care has been taken in selecting materials, in the making, and in curing under high steam pressure. These boots are completely waterproof, comfortable, and will give a long measure of wear under ordinary conditions of service. The hip length is full hip height and has a special pure gum inner re-enforcement at the knee, permitting them to be turned down frequently without cracking. Specify size (6 to 12) when ordering.

Fig. 5102

BLACK SHORT BOOT

★ NET PAIR, \$3.10

Fig. 5103

BLACK GUM HIP BOOT

★ NET PAIR, \$5.16

DISCOUNTS	1 or 2 Pair .....	NET
	3 to 5 Pair .....	10% OFF
	6 or More Pair .....	20% OFF

## GOODRICH

### BROWN HEAVY DUTY BOOTS



Fig. No. 3655

For general wear. The brown compound is resilient thereby remaining free from permanent wrinkles. Soles are of tough white compound.

Fig. No. 3655. Brown Short Boot. Plain Edge White Sole. Cotton Lining. F width. Sizes, 5 to 12.

★ NET PAIR, \$3.43



Fig. No. 3656

Brown Hip Boot. Plain edge white sole. Cotton lining. F width. Sizes 5 to 12. Full hip height.

★ NET PAIR, \$5.63

DISCOUNT

DISCOUNT	1 or 2 Pair .....	NET
	3 to 5 Pair .....	10% OFF
	6 or More Pair .....	20% OFF

## WATERPROOF SLICKER AND HAT



SLICKER

Double throughout, fitted with patented inside storm lap and Reflex edges, two "Stayfast" patented pockets, will not rip; cloth lined collar with throat piece. SPECIFY SIZES.

Size .....	0	1	2	3
Chest, In. ....	44	42	40	38
Length, In. ....	56	54	52	50
No. 121Y—Yellow.				
No. 121B—Black.				
No. 121K—Khaki.				

★ NET EACH, \$3.00

### TARP HAT

SPECIFY SIZES: 6-3/4, 7, 7-1/2, 7-1/2.

No. 11Y—Yellow.  
No. 11B—Black.

★ NET EACH, \$0.50

## WHITE SHORT BOOT



Fig. No. 3657

WHITE. Made by the High Pressure curing method they represent the highest grade, longest wearing boots on the market. The white compound used is more resistant to oxidation through exposure to light than any other rubber compound yet developed. Rolled Edge Sole Cotton Lining. F width. Sizes, 5 to 12.

★ NET PAIR, \$4.30



**WHITE DAIRY  
RUBBER APRONS**

Fig. 3964

White heavy duty apron. For average acid work. For use in dairies; canning, bottling, pickling plants, etc. For industrial and general use. Average size is 34 by 47 inches. Average weight 2 3/4 to 3 pounds each. Edges are hemmed, cemented and vulcanized.

**★ NET EACH, \$2.75**

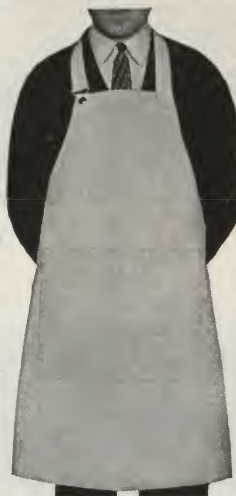
**LEATHER AND  
ASBESTOS APRONS**

Fig. 5104

Made of leather.

Size Inches	★ NET EACH	★ NET DOZEN
24 by 30	\$2.75	\$27.35
24 by 36	\$3.00	\$30.10
24 by 42	\$3.50	\$35.05
24 by 48	\$4.00	\$39.95

Fig. 5105

Made of leather with reinforcing leather patch.

Size Inches	★ NET EACH	★ NET DOZEN
24x30	\$3.35	\$33.65
24x36	\$3.70	\$36.80
24x42	\$4.15	\$41.35
24x48	\$4.55	\$45.55

Fig. 5106

Made of asbestos.

Size Inches	★ NET EACH	★ NET DOZEN
24 by 30	\$1.60	\$15.80
24 by 36	\$1.90	\$18.95
24 by 42	\$2.10	\$21.05
24 by 48	\$2.30	\$23.15

**RUBBER STAIR TREADS—With Nosing Attached**

Fig. No. 3285

**DARK BROWN**

Made from soft resilient rubber, with heavier than ordinary treads. Protects edge of step as well as top. Conforms to any size step. No brass nosing needed, no cementing necessary. Noiseless, safe because non-slip, durable and easy to apply.

Size 9x18 in. ....	★ NET EACH, \$0.40
Size 9x24 in. ....	★ NET EACH, \$0.48

**CORRUGATED STAIR TREADS****★ NET PRICES PER MAT**

Size, In.	Thickness	Net Each
6x18	1/8 in.	\$0.24
9x18	1/8 in.	\$0.28
9x24	1/8 in.	\$0.40



Fig. No. 575

**RUBBER  
WASH APRONS**

Fig. No. 564

Standard size and quality, for ice handlers, car washers, etc.

**★ NET EACH, \$2.00**

**ACID PROOF  
RUBBER APRONS**

Fig. No. 564A

Extra heavy rubber, specially treated to resist acids, for wear in garages, battery stations or wherever acids are handled.

**★ NET EACH, \$2.75**

**GOODRICH WHITE  
INDUSTRIAL SHOES**

Made of a tough, long wearing white compound that resists wear. Water tight. Especially adapted for dairying, ice cream manufacturing, etc.

Fig. 3658

White Lehigh. Rolled edge sole. 9-1/2 inches high. Sizes, 5 to 12.

**★ NET PAIR, \$3.80**

Fig. 3659

White Lehigh. Nonskid sole. 9-1/2 inches high. Sizes, 5 to 12.

**★ NET PAIR, \$4.15**

**DISCOUNTS**

1 or 2 Pair .....	NET
3 to 5 Pair .....	10% OFF
6 or More Pair .....	20% OFF



**RUBBER GLOVES****ANODE PROCESS****FOR ACID AND BATTERY WORK**

Complete protection against acids and other corrosive materials. Made by the anode process, a method of depositing the rubber direct from latex—the original liquid taken from the rubber tree. No solutions of rubber that have been worked or milled are used. Uniform thickness and flexible. Combined with steam curing and age-resisting compounds these gloves have a high-quality.



FIG. 4063. Heavy. .044 inch thickness. 5 inch gauntlet. Sizes 8-1/2, 9-1/2, 10, 10-1/2 and 11.

★ NET PAIR, \$1.50

★ NET DOZEN PAIRS, \$15.00

FIG. 5107. Extra heavy. .055 inch thickness. 5 inch gauntlet. Sizes 10, 10-1/2, and 11.

★ NET PAIR, \$1.75

★ NET DOZEN PAIRS, \$16.80

FIG. 5108. Heavy. .044 inch thickness. 9 inch gauntlet. Sizes 10, 10-1/2 and 11.

★ NET PAIR, \$2.00

★ NET DOZEN PAIRS, \$21.00

FIG. 5109. Extra heavy. .055 inch thickness. 9 inch gauntlet. Sizes 10, 10-1/2 and 11.

★ NET PAIR, \$2.75

★ NET DOZEN PAIRS, \$27.00



FIG. 3651. Medium weight industrial. .027 inch thickness. Reinforced rolled cuff. Length 11 inches. Sizes 8 to 11.

★ NET PAIR, \$0.75

★ NET DOZEN PAIRS, \$6.00

FIG. 5110. Light weight industrial. .015 inch thickness. Reinforced rolled cuff. Length 11 inches. Sizes 6-1/2 to 11.

★ NET PAIR, \$0.50

★ NET DOZEN PAIRS, \$3.60

**ACID GAUNTLET GLOVES****Net Lined, Hand Made**

Fig. 598

Heavy weight. White rubber.

Style No.	Cuff In.	Size	★ NET PAIR	★ NET DOZEN
46U	5	15	\$5.00	\$48.00
39U	9	15	\$5.50	\$54.00

Heavy weight. White rubber. Reinforced fingers, thumb and palm.

Style No.	Cuff In.	Size	★ NET PAIR	★ NET DOZEN
49U	5	15	\$5.50	\$54.00
43U	9	15	\$6.00	\$60.00

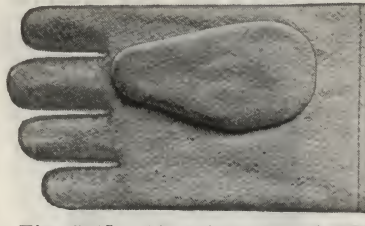
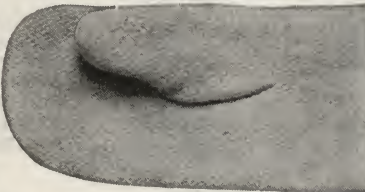
**ASBESTOS GLOVES**

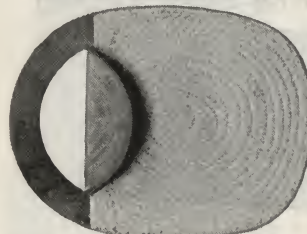
Fig. 5115. All asbestos. ★ NET PAIR, \$1.15; ★ NET DOZEN PAIR, \$11.55. Length Inches: 12 (\$1.30/\$13.00), 14 (\$1.50/\$15.00), 18 (\$1.50/\$15.00).



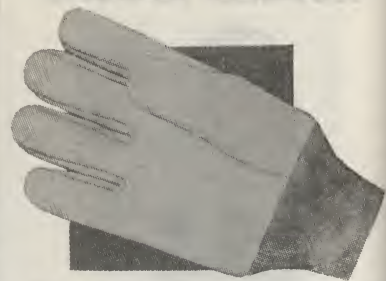
Fig. 5116. Asbestos with leather palm. ★ NET PAIR, \$1.35; ★ NET DOZEN PAIR, \$13.65. Length Inches: 12 (\$1.50/\$14.95), 14 (\$1.90/\$18.95), 18 (\$1.90/\$18.95).

**ASBESTOS MITTENS**

Length Inches: 12 (\$0.90/\$9.00), 14 (\$1.05/\$10.20), 18 (\$1.10/\$11.10). Fig. 5117. All Asbestos. Fig. 5118. With Leather Palm (\$1.10/\$11.10).

**HAND LEATHERS**

Chrome Leather. 7 by 9 Inches. Fig. 5119. Face Asbestos (\$0.95/\$9.50), Plain (\$0.55/\$5.00).

**COTTON GLOVES****CANTON FLANNEL**

We can also furnish gauntlets in the following materials and construction. Prices on request.

Fig. 5122. **PLAIN.** Made of best quality Canton Flannel. Cut large size. Wrist is knit full length and very elastic.

Weight	★ NET PAIR	★ NET DOZEN PAIR
8 Ounce	\$0.14	\$1.25
10 Ounce	\$0.16	\$1.45
12 Ounce	\$0.17	\$1.60

Fig. 5123. **LEATHER PALM.** Knit wrist. Yellow, blue striped canton flannel back.

★ NET PAIR, \$0.27

★ NET DOZEN PAIR, \$2.65

Fig. 5124. **LEATHER PALM, TIPS, AND SIDES OF FINGERS.** Knit wrist. Yellow, blue striped canton flannel back.

★ NET PAIR, \$0.37

★ NET DOZEN PAIR, \$3.70

Fig. 5125. **Black.** For General Use

**White.** For Creameries, Etc.

**RUBBER COATED.** Canton flannel gloves triple dipped in rubber. Keeps hands dry and clean. Absolutely waterproof. Will resist light acids. Specify white or black.

★ NET PAIR, \$0.32

★ NET DOZEN PAIR, \$3.15

**SAFETY LEG GUARDS**

Absolute protection. On or off in a second. The flexible spring steel stay with steel hook and flexible slotted spring plate insures comfort and a fit to any size leg instantly and automatically without adjustments.

Fig. No.	Material	★ NET PAIR	★ NET DOZEN PAIR
5113	Leather	\$3.45	\$34.40
5114	Asbestos	\$3.50	\$35.00

**SAFETY HIP LEGGINGS**

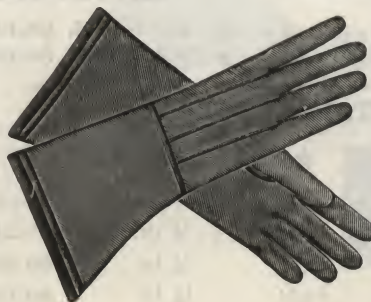
Thirty six inches long. Cut to give full measure of protection and comfort. The flares are strongly stitched. Adjustable straps.

Fig. 5111. Chrome leather. ★ NET PAIR, \$4.40

★ NET DOZEN PAIR, \$44.10

Fig. 5112. Made of Asbestos. ★ NET PAIR, \$3.35

★ NET DOZEN PAIR, \$33.65





## JUSTRITE GARDEN HOSE NOZZLE

Made of Heavy Cast Brass. Will not Corrode.

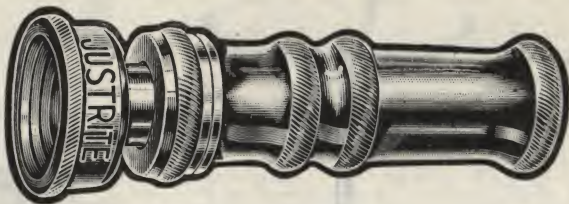


Fig. 85. (PATENTED)

The 'Justrite' Garden Hose Nozzle is easily adjusted to produce:—A FINE SPRAY—A HEAVY SPRAY—A STRAIGHT STREAM for distance—A HEAVY STRAIGHT STREAM for volume—and a COMPLETE SHUT-OFF without leakage. No back spray or drip. Each 'Justrite' is water tested, built for hard service, is STURDY and will stand abuse. The body is knurled at the tip and the base, with two heavy knurls at the center, enabling the user to make adjustments instantly and easily. In the stem construction the discharge openings have a full, clear water way. 1 dozen in a box.

The 'Justrite' is made heavy of CAST BRASS, highly polished and formed into a beautiful modern design that we GUARANTEE to give efficient operation.



$\frac{3}{4}$  Inch Brass  
LIST EACH, \$0.70  
1 Inch Brass  
LIST DOZEN, \$16.00

## JEWEL CAST BRASS GARDEN HOSE NOZZLE



Fig. 4703

Solid cast brass, finished and polished. Quickly adjusted to produce various sprays, straight stream and a complete shut-off without leakage.  
LIST EACH, \$0.48

## ALLEN FLAT SPRAY CAST BRASS BASE

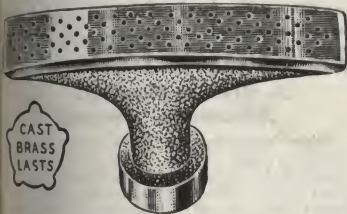


Fig. 4235

Sprays a rectangular strip about the proportions of 10 to 1. Ideal for all kinds of sprinkling, especially flowers and delicate foliage. Small perforations. Heavy body made of cast brass. The sprinkler part is approximately  $\frac{7}{8}$  inches by  $\frac{5}{8}$  inches.  $\frac{3}{4}$  inch hose thread.

Brass .....LIST DOZEN, \$7.20  
Nickel Plated ..LIST DOZEN, \$7.70

Fig. 4479. Brass with shut off. Will reduce the volume of water or shut off the supply completely.

LIST DOZEN, \$9.20

## UNIVERSAL SPRAY AUTOMATIC NOZZLE

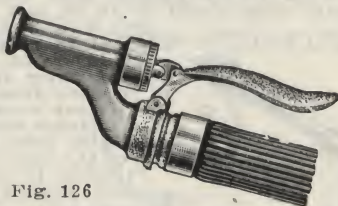


Fig. 126

### AUTOMATIC SHUT OFF

Shut Off      Straight Stream      Fine Spray

U. S. A. Nozzle is in demand for garage use. Slight pressure on the handle produces a fine spray, further pressure a coarser spray to a straight stream. Automatically shuts off when all pressure on handle is released.

$\frac{3}{4}$  inch, nickel plated.

LIST DOZEN, \$24.00

## GOLDSMITH HOSE RACK



Fig. No. 254

Both hose and rack can be conveniently carried from place to place. The hose hangs on the rack in large, natural coils, which prevents twisting and kinking. The rack is made of pressed steel.

LIST DOZEN, \$13.20

## "ROSE" SPRINKLER



Fig. No. 129

Polished brass, with a perforated, bulging face, giving a profuse and well distributed spray. Attractively packed, 1 dozen in display carton.

$\frac{3}{4}$  inch, H. P. T., LIST DOZEN, \$3.60  
 $\frac{1}{2}$  inch, I. P. T., LIST DOZEN, \$3.60

## "HOT HOUSE" SPRINKLER

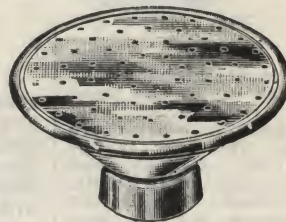


Fig. No. 3604

### STAMPED BRASS

Stamped from heavy sheet brass. Efficient and reasonably priced.  $\frac{3}{4}$  inch hose thread.

3 inch face ....LIST DOZEN, \$5.80  
4 inch face ....LIST DOZEN, \$7.30

Fig. No. 1936

### CAST BRASS

Made with a heavy cast brass base, weighs  $2\frac{3}{4}$  times more than the sheet brass Shower Sprinkler.  $\frac{3}{4}$  inch hose thread.

3 inch face ...LIST DOZEN, \$11.00  
4 inch face ...LIST DOZEN, \$14.50

## "GREEN HOUSE" SPRAY OR SPRINKLER



Fig. No. 268

CAST BRASS LASTS

This heavy type adjustable sprinkler is designed especially for greenhouse use. It is equipped with two heavy sheet brass plates, one with coarse perforations, (.040 in.), the other with fine (.022 in.). By unscrewing the cast brass collar, either of the two plates can be inserted and used as desired. Diameter of face, 4 inches; made with  $\frac{3}{4}$ -inch hose thread.

LIST DOZEN, \$26.40

Extra Plates ....List Set of 2, \$0.70

## SHUT-OFF CONNECTIONS

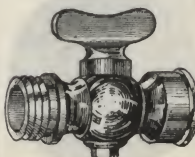


Fig. 1937

Cast brass, polished.  $\frac{3}{4}$  inch male hose thread on one end,  $\frac{3}{4}$  inch female hose thread on the other.

LIST DOZEN  
\$15.20



## ALLEN REVOLVING LAWN SPRINKLERS

For  $\frac{3}{4}$  Inch Hose Connection. All sprinklers packed each in box, 1 dozen in carton.

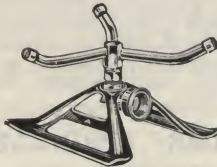


Fig. 3463  
**'DOLLAR'**

3 $\frac{3}{8}$  inches high. 6 $\frac{1}{2}$  by 7 $\frac{7}{8}$  inch base. The brass arms are 4 inches long. The head and arms are brass. The base is finished red.  $\frac{3}{4}$  inch solid hose connection with die cut threads. The 'Dollar' distributes water thoroughly and is one of our popular numbers sold at an attractive price.

LIST DOZEN, \$13.20

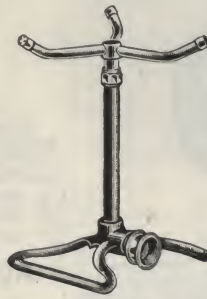


Fig. 4454  
**'GREENWOOD'**

A low priced, three arm revolving lawn sprinkler. The base is 6 $\frac{1}{2}$  by 5 $\frac{1}{2}$  inches, finished in black. The stem is finished red. Brass head. The brass arms are 4 inches long. 9 inches high,  $\frac{3}{4}$  inch swivel hose connection with die cut threads.

LIST DOZEN, \$12.00

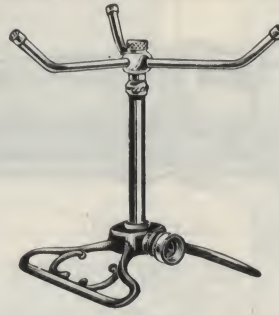


Fig. 43  
**ALLEN BALL BEARING**

Improved. Easy running. For low to high water pressure. Will not leak around the cast brass ball bearing head. 10 inches high with a 12 $\frac{1}{4}$  inch spread between the tips of the polished brass arms. 8 by 7 $\frac{3}{4}$  inch base. Wedgewood two-tone shaded finish.  $\frac{3}{4}$  inch swivel hose connection with die cut threads.

LIST DOZEN, \$26.40



Fig. 243. (Patented)  
**'ZENITH'**

A popular, free running sprinkler. It distributes water evenly and thoroughly. Ground joint type bearing. Leakage reduced to a minimum. Will sprinkle a circle about 30 feet in diameter with 20 pounds pressure at the sill cock. Polished brass head. Polished brass arms are 4 $\frac{1}{2}$  inches long 4 inches high. 7 $\frac{1}{2}$  by 6 inch base, finished green.

LIST DOZEN, \$16.50

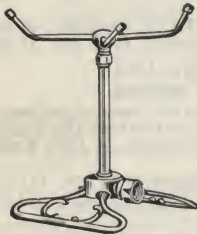


Fig. 244. (Patented)  
**'ANACONDA'**

It will sprinkle a circle about 32 feet in diameter with a 20 pound pressure at the sill cock. The base and stem are finished in red enamel, baked-on. Highly polished brass arms and head. 10-1/2 inches high. The base is 7-7/8 by 7-7/8 inches. The arms have a 12-1/2 inch spread. LIST DOZEN, \$21.00

### ALLEN 'RED ARROW' LAWN SPRINKLER

A practical sprinkler of the rotary type, operated by means of a simple vibrating mechanism and the angle of the discharge head. For use on large lawns, estates, cemeteries, parks, golf greens, and fairways where ONLY municipal or average water pressure is available. It will discharge from 1.1 to 3.6 gallons each minute and will cover a diameter from about 60 to 85 feet.

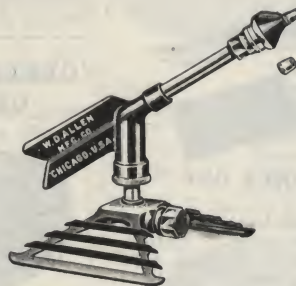


Fig. 7020

The two discharge outlets adapted to sprinkle different areas insure an even distribution of water and on account of its slow rotary motion (as low as one revolution a minute) a larger area can be covered with less frequent shifting of the hose and sprinkler.

Finished in red and black enamel. For  $\frac{3}{4}$  inch hose connection only. With one 1/8 inch and one 5/32 inch nozzle to take care of the difference in operating pressures. The length of the Arrow is 13 inches. The height, at the discharge tip, is 10-1/4 inches. 8 by 7-3/4 inch base.

LIST DOZEN

With Base .....\$48.00  
With Roller .....\$60.00



Fig. No. 319  
**AJAX**

Stands 20 inches high on a base 18 inches square. The arms have a spread of 18 inches. Arms are  $\frac{1}{2}$  in. tubing and are provided with lock-nuts. Made for both  $\frac{3}{4}$  and 1 inch hose. Nickel plated head. Sprinkles circle 40-45 feet.

LIST EACH  
3/4 in. conn. ....\$7.50  
On Roller .....\$12.00

### "PARKSIDE" UNIVERSAL NOZZLE TYPE SPRINKLER

Adjustable For All Sprinkling!

You can instantly adjust the 'Parkside' to sprinkle any way you want: a fine mist for new lawns, plants just started, etc.; various sprays for flowers and lawns; or various streams for shrubs, etc.; for large circles to the smallest area; for stationary sprinkling of half circles, triangles, and odd shaped plots. Whether your water pressure is HIGH or LOW, the 'Parkside' will operate efficiently and distribute water thoroughly.

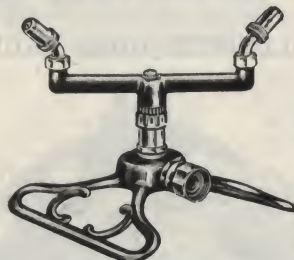


Fig. 200. (Patented)

Special Bearing!  
Adjustable Nozzles!

The bearing is of a special material that will last indefinitely packed in grease. The brass stop positive. The brass stop knurled. A stuffing nut holds the nozzles in place after they are adjusted.  $\frac{3}{4}$  inch swivel hose connection with die cut threads. Base and arms are finished in a new Wedgewood two-tone black and red combination. 8x7 $\frac{3}{4}$  inch base. Shipping weight, dozen, 42 pounds.

LIST DOZEN, \$35.00



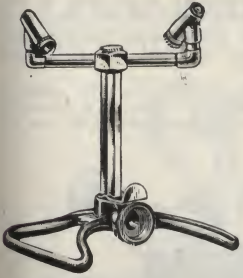


**'JUNIOR' NOZZLE TYPE SPRINKLER**

Fig. 203. (Patent Applied for)

A leading sprinkler number because of its **LOW PRICE**, its **ADAPTABILITY**, its **EFFICIENCY** in thoroughly distributing water, its **FAST RUNNING BEARING**, and the fact it can be used anywhere whether there is **HIGH OR LOW WATER PRESSURE**. The area sprinkled is controlled by quick adjustments and the water pressure. Nozzles are adjustable from a stream to a spray and can be turned in any desired direction. Can be used for stationary or revolving sprinkling. 8 inches high. The base is  $5\frac{1}{2}$  by  $6\frac{1}{2}$  inches and is finished red. Solid  $\frac{3}{4}$  inch hose connection with die cut threads. The arms, nozzles, hexagon tubing and the stop are finished brass.

LIST DOZEN, \$26.40

**DEW DROP SPRINKLERS**

A coarse spray is produced and it sprinkles satisfactorily with any water pressure. The 11 inch stamped wrought brass perforated blade and the sturdy brass revolving head with a ground joint type bearing insure years of service. The stem and base have the Wedgewood two-tone shaded finish, black and red baked-on enamel.



Fig. 4298. DEW DROP

$9\frac{1}{2}$  inches high. Base is  $7\frac{3}{4}$  by 8 inches.  $\frac{3}{4}$  inch swivel hose connection.

LIST DOZEN, \$21.00



Fig. 4570. DEW DROP JUNIOR

4 inches high. Base is  $7\frac{1}{4}$  by  $6\frac{1}{4}$  inches.  $\frac{3}{4}$  inch solid hose connection.

LIST DOZEN, \$16.80

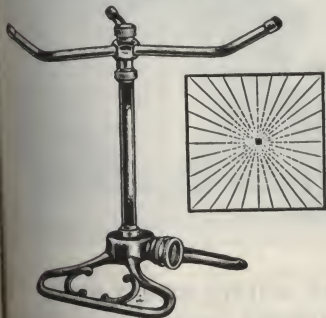
**ALLEN SQUARE SHOOTER**  
It Sprinkles a Square Area!

Fig. 4571

An economical, modern square sprinkler that will sprinkle a square area from 20 to 40 feet across and into the corners, according to your water pressure. Brass head and arms. 11 inches high. 8 by  $7\frac{3}{4}$  inch base. Enamel finish, baked on.  $\frac{3}{4}$  inch swivel hose connection.

LIST DOZEN, \$22.00

**FOUR SQUARE SPRINKLER**

New! It Sprinkles Square!

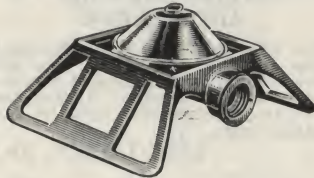


Fig. 4572. (Patent Applied for)

It sprinkles **SQUARE AREAS** (about 18 by 18 feet with normal water pressure) eliminating waste. A fine spray is thoroughly and evenly distributed. Polished stamped sheet brass top. Cast iron base is  $5\frac{1}{2}$  by  $7\frac{1}{4}$  inches, finished red.  $3\frac{1}{4}$  inches high.  $\frac{3}{4}$  inch solid hose connection with die cut threads.

LIST DOZEN, \$11.00

**GLOBE LAWN SPRINKLER**

Fig. 3607. (Patented)

A novelty when it revolves as it makes a veritable globe or ball of spray or mist. Improved free-running bearing. Chromium plated brass ring 5-7/8 inches in diameter. 9-1/4 inches high. Red and black base, 6-1/2 by 6-5/8 inches. 3/4 inch solid hose connection.

LIST DOZEN, \$21.00

**'SPIKE' SPRINKLER**

Fig. 4519

Cast brass. Sturdy. The Allen 'Spike' throws a 20 foot fine fan-shaped spray away from the sidewalk onto the parkway, flower bed, or lawn. The width covered by the spray depends upon the angle at which you tip the sprinkler. 5 1/2 inches high. 3/4 inch die cut hose connection.

LIST DOZEN, \$3.80

**CAST IRON SPRINKLERS**  
No Revolving Parts

Fig. No. 54

C. B. G.

The C. B. G. (Cheap, But Good) is aptly described by its name. It permits all the water that passes through the hose to be distributed in a spray without causing any back pressure on the hose. Diameter 4 in., made of iron, finished red.

LIST DOZEN, \$4.40

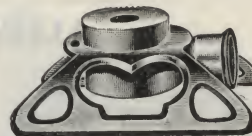


Fig. No. 53

EVANSTON

Tangential spray type, similar to the C. B. G., but larger size. Has no revolving parts to wear out and even if there is sand in the water it will not clog the sprinkler. Size  $6\frac{1}{4}$  x 5 in. Finished red.

LIST DOZEN, \$9.20

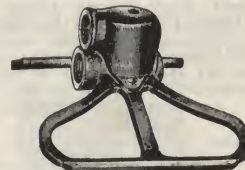


Fig. No. 252

TWO-IN-ONE

This cast iron sprinkler has two hose connections. When the lower one is used a half-circle spray results, while with the upper one a full circle results. The half circle spray is very good when sprinkling along the edge of a sidewalk. Red finish.

LIST DOZEN, \$14.00

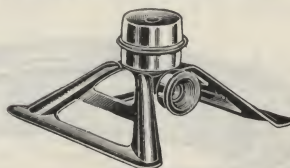
**'AETNA' SPRINKLER**

Fig. 4080

The Aetna gives a tangential spray. Sand or grit in the water will not clog the sprinkler. Stamped brass head. Stands  $3\frac{1}{2}$  inches high. Stamped base finished in red is  $6\frac{1}{2}$  by  $7\frac{1}{2}$  inches.  $\frac{3}{4}$  inch solid hose connection with die cut threads.

LIST DOZEN, \$8.00



## ALLEN MULTIPLE LAWN SPRINKLERS

All of our multiple type sprinklers are designed to produce a fine mist, which prevents flooding and possible erosion, and insures complete saturation of the ground. The usual method is to connect these sprinklers in series with short lengths of hose (Not over 12½ feet, depending upon the water pressure and volume) making a movable and flexible sprinkler system. The area to be sprinkled may be large or small, any shape, and is ideal for parkways. The number of sprinklers used in series is regulated by the water pressure in your locality.

These sprinklers are made with a cast brass body and a broad flat steel base that will lay flat on the ground. Strongly constructed to stand the abuse incident to this type of sprinkler. The end sprinkler is to have a hose cap screwed on. The base is finished red and is 8¾ inches long by 2 inches wide. ¼ inch hose connection with die cut threads. Four sprinklers and 2 end caps in a box, shipping weight 3 pounds.

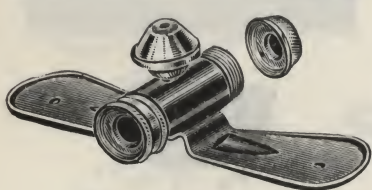
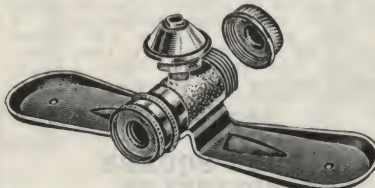


Fig. 3855 (Patented)

### 'CHICAGO' CIRCULAR ADJUSTABLE

The 'Chicago' with its ADJUSTABLE HEAD (a slight twist of the top does it) controls the water flow so that each spray in the series sprinkles uniformly.

LIST DOZEN, \$9.30

Fig. 4573 (Patent Applied For)  
'ALLEN SQUARE' ADJUSTABLE

The fine mist-spray is distributed in the form of a square, this eliminates loss of water caused by overlapping of the circles. Adjustments for volume control are made by turning the head.

LIST DOZEN, \$9.30

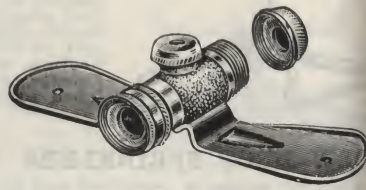


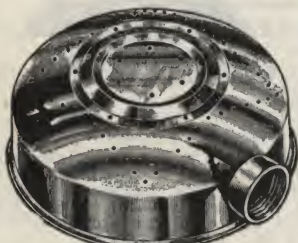
Fig. 4301

### 'SUNSHINE' CIRCULAR NON-ADJUSTABLE

The 'Sunshine' Sprinkler has NO ADJUSTMENT. A mist like spray is produced assuring complete saturation of the ground.

LIST DOZEN, \$8.70

## ALLEN WROUGHT BRASS SPRINKLERS

Fig. No. 65A  
BABY RING

Stamped from sheet brass with the bottom crimped on so strongly that it will easily hold any city water pressure. The hose connection has cut threads and is soldered on. Diameter 6 in., height 1¾ in.

Base	Top	LIST DOZEN
Brass	Brass	\$8.30
Galvanized	Brass	\$7.30



Fig. No. 261

### BUCKEYE HALF CIRCLE

A heavy sheet brass sprinkler of the popular fountain spray type with the perforations so arranged that it covers a complete half circle.

Very desirable for use at the edge of gardens and flower beds. Substantially made and will not bulge under normal water pressure.

Each sprinkler in display box, one dozen in carton.

LIST DOZEN, \$9.60

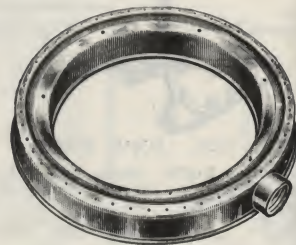


Fig. 3886

### RING SPRINKLER

The original model. With extruded brass ¾ inch hose connection. Stamped brass perforated top. Galvanized base. Guaranteed to be absolutely satisfactory and to stand water pressure of any municipality.

LIST DOZEN, \$11.00

## ALLEN IMPROVED RING SPRINKLER

### THE 'RING' THROWS A WELL DISTRIBUTED SPRAY!

The arrangement of the perforations in the Allen Ring Sprinkler is individual with us, and is the result of years of effort and experiment to determine the most satisfactory distribution of water. The 'Allen Ring' throws a finely divided, well distributed, coarse spray, covers a large circle and can be conveniently moved without shutting off the water.

### GUARANTEED!

The 'Allen Ring' is guaranteed to stand the water pressure of any municipality in the United States.

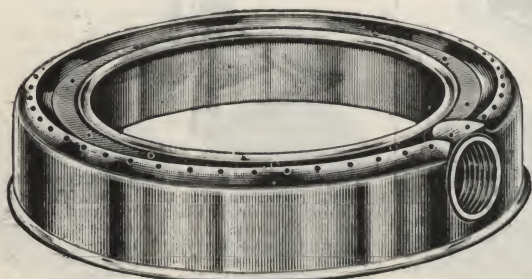
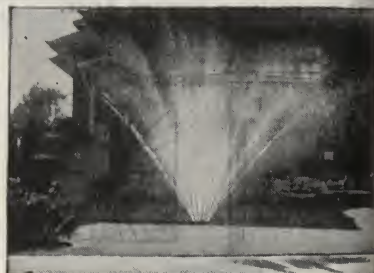


Fig. No. 65

### MADE OF HEAVY GAUGE SHEET BRASS

The Allen Ring Sprinkler is made entirely of sheet brass of an unusually heavy gauge. It is so strongly crimped together that it cannot be forced apart even under the heaviest pressure. This enables us to GUARANTEE the Allen Ring to stand the water pressure of any municipality in the United States. 8 inch diameter. With inserted ¾ inch hose connection with clean, sharp, die cut threads. Each sprinkler is packed in individual display cartons, one dozen in shipping carton, weighing 14 pounds. LIST DOZEN, \$13.20



## 'BUSY' LAWN SPRINKLER

One of the BEST Distributors  
of Water on the Market

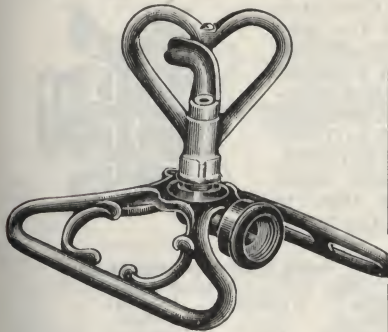


Fig. 51

The newly designed top with its SPECIAL bearing prevents undue wear, while its silvery cadmium plated head, its dark baked enamel green iron base overshot with silver makes it as attractive as it is effective on the garden or lawn.

With 20 pounds pressure at the sill cock the 'Busy' will thoroughly cover a circle 35 feet in diameter. The 'Blake' Head is  $\frac{3}{4}$  inch I.P.T. The base is  $7\frac{1}{2}$  by  $6\frac{3}{4}$  inches.  $\frac{3}{4}$  inch solid hose connection with die cut threads. 1 sprinkler in a box.

LIST DOZEN, \$15.00

## HARTFORD SPRINKLERS With Blake Heads

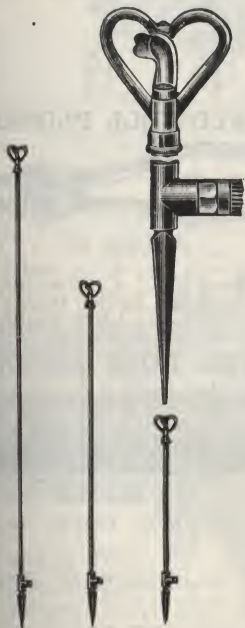


Fig. No. 57

The Hartford lawn sprinkler is made by connecting a Blake sprinkler to a section of pipe provided with a combination hose connection and spike. The spike is easily pushed into the ground and the elevated sprinkler head distributes water to a large area. For medium water pressure the No. 4 is the most popular size.

## LIST DOZEN

No. 2.	2 ft. high	\$19.80
No. 4.	4 ft. high	\$23.10
No. 6.	6 ft. high	\$27.50

## SPRINKLER OR IRRIGATION HEADS

Fig. 63 Ideal Fig. 64 Blake  
Fig. 63

## Allen's 'IDEAL' Heads

Made with perfected composition bearings in the top and bottom ends of the revolving wing. NO METAL TO METAL bearing parts, this assures long life and quiet running. Stainless steel stem and nozzle. The water leaves the opening and impinges on the spoon causing it to revolve FREELY and throwing the water uniformly a long distance.

## LIST DOZEN

Size 0.	$\frac{3}{8}$ Inch. I. P. T.	\$7.50
Size 1.	$\frac{3}{4}$ Inch. H. P. T.	\$7.50
Size 2.	$\frac{3}{4}$ Inch. I. P. T.	\$7.50
Size 5.	$1\frac{1}{2}$ Inch. I. P. T.	\$7.50

Fig. 64

## Allen's 'BLAKE' Heads

The old reliable. At an elevation of 4 feet with 20 pounds pressure at the sill cock approximately 3 gallons each minute will be evenly distributed a distance of about 50 feet from the head. Cadmium plated.

## LIST DOZEN

Size 0.	$\frac{3}{8}$ Inch. I. P. T.	\$6.60
Size 1.	$\frac{3}{4}$ Inch. H. P. T.	\$6.60
Size 2.	$\frac{3}{4}$ Inch. I. P. T.	\$6.60
Size 3.	1 Inch. I. P. T.	\$11.50
Size 5.	$1\frac{1}{2}$ Inch. I. P. T.	\$6.60

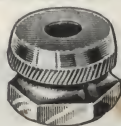


Fig. 4478. ADJUSTABLE

## CHICAGO CIRCULAR HEAD

The 'CHICAGO' throws a fine mist-like spray that will thoroughly saturate the ground. Turning the head will reduce or increase the amount of water sprayed or the water can be completely shut-off. Made of brass.  $\frac{1}{2}$  inch male iron pipe thread with die cut threads.

LIST DOZEN, \$4.40

Fig. 4448. NON-ADJUSTABLE  
LIBERTY CIRCULAR HEAD

A fine mist-like spray is distributed evenly. The brass head is not adjustable.  $\frac{3}{4}$  inch female iron pipe thread with die cut threads.

LIST DOZEN, \$4.40

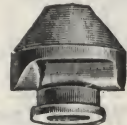


Fig. No. 290

## RED TOP HEADS

A patented device invented by us, in use largely as a lawn sprinkler, also in connection with overhead irrigation plants. Made in a good quality grey iron and by the peculiar arrangement of the interior channels a finely divided spray is obtained.

## LIST DOZEN

$\frac{3}{8}$ inch I. P. T.	\$7.20
$1\frac{1}{2}$ inch I. P. T.	\$7.20
$\frac{3}{4}$ inch I. P. T.	\$7.20
$\frac{3}{4}$ inch I. P. T. Extra Large	\$8.50

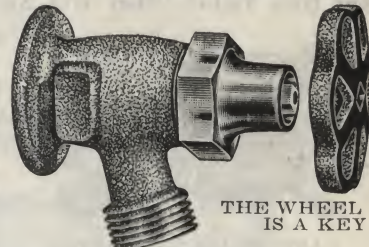
## SILL COCKS

## HIGH GRADE—GUARANTEED

Cast brass. Nickel plated. The wheel handle can be removed.  $\frac{3}{4}$ -inch male hose thread outlet. Shipping weight;  $\frac{1}{2}$ -inch, dozen, 13  $\frac{1}{2}$  pounds;  $\frac{3}{4}$ -inch, dozen, 13 pounds. SPECIFY  $\frac{1}{2}$  or  $\frac{3}{4}$  inch inlet.

Fig. 4289  $\frac{1}{2}$ .  $\frac{1}{2}$  inch inlet.Fig. 4289  $\frac{3}{4}$ .  $\frac{3}{4}$  inch inlet.

LIST DOZEN, \$10.56

Fig. 269  $\frac{1}{2}$ .  $\frac{1}{2}$  inch inlet.Fig. 269  $\frac{3}{4}$ .  $\frac{3}{4}$  inch inlet.

LIST DOZEN, \$10.56

Keys to fit Fig. 269 or Fig. 4289.  
LIST DOZEN, \$1.68

## CHICAGO GOOSE NECK CONNECTION

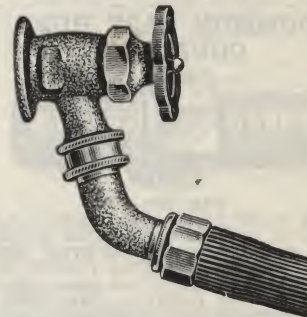


Fig. No. 67

A device to prevent the hose from kinking at the sill cock or street washer. With  $\frac{3}{4}$  in. hose connection.

LIST DOZEN, \$7.30

## GARDEN HOSE SIAMESE

Fig. 68

This garden hose Siamese divides a stream of water on a lawn, thereby running two sprinklers at once, if desired. Clean, sharp DIE CUT threads.

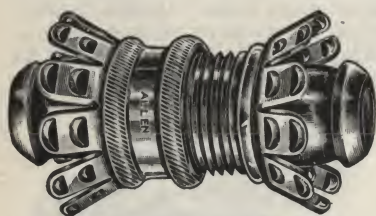


$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ Inch.	List Dozen, \$8.80
1 x $\frac{3}{4}$ x $\frac{3}{4}$ Inch.	List Dozen, \$13.20
1 x 1 x 1 Inch.	List Dozen, \$17.60



## 'ALLEN SUPER MULTI-GRIP' WROUGHT BRASS CLINCHING HOSE COUPLINGS AND MENDERS

At Many Points The Hose Is Compressed and Securely Held! No Sharp Edges to Cut Your Hose!



'MULTI-GRIP' COUPLINGS

Fig. 251. (Patent Applied For)

For Hose, Inches	Weight 12 in Box, Pounds	LIST DOZEN—Rolled Threads	Cut Threads
1/2	1-11/16	\$3.20	\$3.44
5/8	1-15/16	\$3.20	\$3.44
3/4	2-1/16	\$3.20	\$3.44
1*	4-7/8	....	\$7.00

Female Ends: 2/3 the price of the Cut Thread Complete Set.

\*The 1 Inch are not Multi-Grip.

The latest and most important improvement in Wrought Brass Clinching Hose Couplings and Menders is the new improved 'SUPER MULTI-GRIP' STEEL FINGERS. There are two deep indentations in each steel finger and when hammered down WILL NOT CUT OR INJURE THE RUBBER COVER OR BRAID OF THE HOSE and YOU SAVE THE HOSE. The cadmium plated, extra heavy, steel fingers are rust-resisting. The tube is made of wrought brass and is of the latest design and full weight.

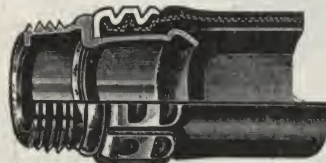


'MULTI-GRIP' MENDERS

Fig. 250. (Patent Applied For)

For Hose, Inches	Number in Box	Weight of Box, Pounds	LIST DOZEN
1/2	24	1-9/16	\$1.20
5/8	24	1-15/16	\$1.20
3/4	24	2-5/16	\$1.20
1*	12	2-1/2	\$3.00

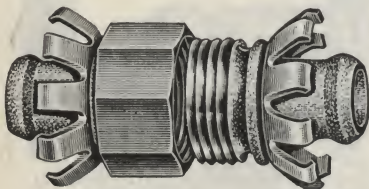
\*The 1 Inch are not Multi-Grip.



## 'BULL DOG' CAST BRASS

### CLINCHER HOSE COUPLINGS AND MENDERS

They Grip Tight! They Will Not Rust! Heavy Cast Brass Body!



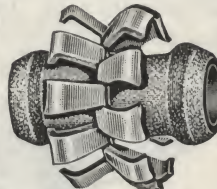
CAST BRASS COUPLINGS

Fig. 3368. (Patented)

For Hose, Inches	No. in Box	Weight Pounds, Dozen	LIST DOZEN
1/2	12	3-1/4	\$3.44
5/8	12	3-1/2	\$3.44
3/4	12	3-3/4	\$3.44

Female Ends: 2/3 the price of a full set.

The rugged heavy cast brass body with the special shaped steel cadmium plated fingers, can stand a world of punishment. The couplings have a sturdy cast brass swivel with clean, sharp, CUT threads.



CAST BRASS MENDERS

Fig. 2786. (Patented)

For Hose, Inches	Number in Box	Weight of Box, Pounds	LIST DOZEN
1/2	24	2-3/8	\$1.20
5/8	24	2-5/8	\$1.20
3/4	24	3-3/8	\$1.20
1	12	2-3/4	\$3.00

## CALDWELL HOSE STRAPS



Fig. No. 80

1 gross in package.

LIST DOZEN

No.	Length, In.	For Hose Size	LIST DOZEN
2	3 3/4	1/2	\$0.43
4	3 3/4	1/2	\$0.47
6	4 1/4	3/4	\$0.51
8	4 1/4	3/4	\$0.53
10	5 1/2	1	\$0.66
12	5 3/8	1	\$0.70
14	6 3/8	1 1/4	\$1.72
16	6 3/8	1 1/4	\$1.72
18	6 3/4	1 1/2	\$2.12

## CALDWELL PLIERS



Fig. No. 81

No. 1, for 1/2 in., 3/4 in. and 1 inch hose ..... LIST EACH, \$0.40  
No. 2, for hose larger than 1 inch ..... LIST EACH, \$0.60

## COMMON CAST HOSE COUPLINGS



Fig. No. 17

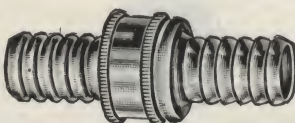
We carry in stock always the 1/2 inch, 3/4 inch and 1 inch garden hose couplings of the type illustrated above, hose pipe thread; and 1/2 inch and 3/4 inch, iron pipe thread.

Our 1 inch couplings are heavy, of ample size for any ordinary work.

LIST DOZEN

3/4 H.P.T.	Tail 1/2 In.	I.P.T. List Dozen
3/8 inch .. \$2.64	1/2	3/4 \$2.64
1/2 inch .. \$2.64	3/4	1 \$2.64
5/8 inch .. \$2.64	1	1 1/4 \$2.64
3/4 inch .. \$2.64	1 1/4	1 1/2 \$5.80

## WROUGHT BRASS HOSE COUPLINGS



Made of sheet brass, nicely finished. Die cut threads, deep corrugated tail piece.

Tailpiece For Hose	Connection Inches	LIST DOZEN
--------------------	-------------------	------------

Fig. 2864. STANDARD WEIGHT	LIST DOZEN
3/4 inch 3/4 H. P. T.	\$2.36
1/2-5/8-3/4 1 H. P. T.	\$2.24
1 inch 1 1/4 H. P. T.	\$5.00

Fig. 4453. SHORT TAIL	LIST DOZEN
1/2-5/8-3/4 3/4 H. P. T.	\$2.04

## COOPER HOSE MENDERS

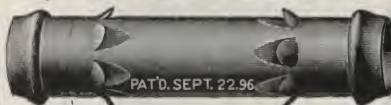


Fig. No. 2772

Easy to apply, require no tools or clamps.

1/2 inch	LIST DOZEN	\$1.35
3/4 inch	LIST DOZEN	\$1.35
1 inch	LIST DOZEN	\$1.35
1 1/4 inch	LIST DOZEN	\$2.10

## HOSE MENDERS—Wood, Iron and Sheet Brass



Fig. No. 73

### Wood

LIST 100

1/2 inch .....	\$2.00
5/8 inch .....	\$2.20
3/4 inch .....	\$2.40



Fig. No. 74

### Iron

LIST DOZEN

1/2 inch	Plain Galvanized	\$0.80
5/8 inch	Plain Galvanized	\$0.90
3/4 inch	Plain Galvanized	\$1.00
1 inch	Plain Galvanized	\$1.20



Fig. No. 152

### Wizard Sheet Brass

LIST DOZEN

1/2 inch .....	\$0.60
5/8 inch .....	\$0.60
3/4 inch .....	\$0.60



NOTE: We are prepared to make Distillate Hose Couplings in special styles. Write us stating your ideas, together with quantity and size.



### CAST BRASS HIGH PRESSURE HOSE COUPLINGS

For high pressures or heavy duty service using air, steam, or water. Used for car washing, high pressure spraying, etc. Long tailpieces, and is made with a collar for holding the fingers of the heavy cast brass clamp. This construction makes it impossible for the hose to blow off or to pull off. Cadmium plated bolts.

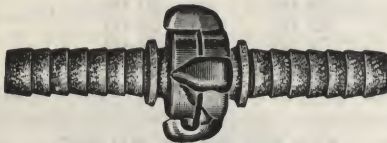


Fig. 4711

Hose Size Inch	Connection Male and Female	Size and Thread, Clamp No.	Fits Hose O.D., Inches	LIST SET
3/8	3/4 Hose or I. P.	3/8-2B	23/32 to 7/8	\$1.20
3/8	3/4 Hose or I. P.	3/8-3B	29/32 to 31/32	\$1.20
1/2	1/2 I. P.	1/2-2B	29/32 to 31/32	\$1.26
1/2	1/2 I. P.	1/2-3B	1 to 3/32	\$1.26
1/2	3/4 Hose or I. P.	1/2-2B	29/32 to 31/32	\$1.26
1/2	3/4 Hose or I. P.	1/2-3B	1 to 3/32	\$1.26
3/4	3/4 Hose or I. P.	3/4-2B	1- 3/16 to 1- 9/32	\$1.90
3/4	3/4 Hose or I. P.	3/4-3B	1- 5/16 to 1- 7/16	\$1.90
1	Hose or I. P.	1-3B	1- 5/8 to 1- 7/8	\$3.52
1	Hose or I. P.	1-4B	1-15/16 to 2- 1/8	\$3.52

DISCOUNT .....20% OFF

### AIR HOSE COUPLINGS



Showing Coupling (with hose ends) connected.

The only universal coupling yet devised. Neither half is male or female at the interlocking end, but a combination of both. Thus a 3/8 inch hose may be coupled to a 1 inch pipe, a 3/4 inch hose to 1 inch pipe, a 1/2 inch hose to a 1 inch pipe, etc. In other words, any size can be coupled to any other size, whether it be larger or smaller.

The device is instantly connected or disconnected by a one-quarter turn. It is absolutely tight and free from leaky joints that waste air or reduce the line pressure. The gaskets are of pure rubber, cannot blow or fall out, and no time is wasted looking for washers.

The coupling is ruggedly constructed of bronze, cannot corrode, and is therefore unaffected by weather or moisture.

When ordering please specify style number.

Important: Note that prices are given "per piece." When a full set of couplings is wanted 2 pieces must be ordered.

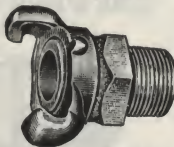


Fig. No. 2496B

Style No.	I. P. T. Male, in.	★ NET PIECE
10	1	\$1.00
20	3/4	\$1.00
30	1/2	\$1.00
40	3/8	\$1.00
50	1/4	\$1.00

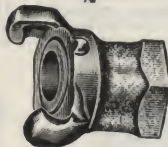


Fig. No. 2496F

Style No.	I. P. T. Female, in.	★ NET PIECE
60	1	\$1.00
70	3/4	\$1.00
80	1/2	\$1.00
90	3/8	\$1.00
100	1/4	\$1.00



Fig. No. 2495B

Style No.	For hose, in.	★ NET PIECE
110	1	\$1.00
120	3/4	\$1.00
130	1/2	\$1.00
140	3/8	\$1.00
150	1/4	\$1.00

Extra Washers.  
★ Net Each, \$0.07

DISCOUNT	1 to 11	.....NET
	12 to 49	.....10% OFF
	50 or More	.....25% OFF

IMPORTANT: When ordering, always supply thread information, (H.P.T., I.P.T., or special) to avoid delay.

### CAST BRASS SHORT SHANK SPRAY COUPLINGS



Fig. 44  
For high pressure spraying of air, water, paint, insecticides, etc. Internally reamed for full waterway.

Iron Pipe Thread	Tail Piece For Hose	Weight, 12, Pounds	LIST DOZEN
1/4	1/4	1-1/2	\$6.24
1/4	3/8	1-7/8	\$6.24
3/8	1/4	2	\$6.24
3/8	3/8	2-1/4	\$6.24

DISCOUNT .....20% OFF

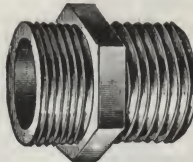


Fig. No. 91

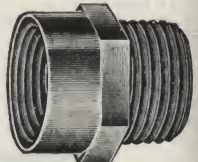


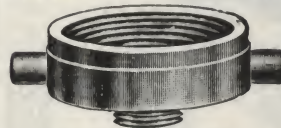
Fig. No. 92

### HOSE NIPPLES

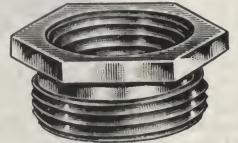
Size In.	Fig. 91 Male List per Doz.	Fig. 92 Female List per Doz.	Size, In.	Fig. 91 Male List per Doz.	Fig. 92 Female List per Doz.
1/2	\$ 3.50	\$ 3.50	2	\$14.00	\$14.00
3/4	3.50	3.50	2 1/2	28.00	28.00
1	5.00	5.00	3	40.00	40.00
1 1/4	9.00	9.00	3 1/2	50.00	50.00
1 1/2	10.00	10.00	4	75.00	75.00
1/2 and 3/4 Inch.....	★ NET DOZEN, \$2.88				
1 Inch.....	★ NET DOZEN, \$5.20				
Fig. 91. 1-1/4 Inch and Larger.....	4% OFF				
Fig. 92. 1-1/4 Inch and Larger.....	PLUS 4%				

### HOSE REDUCERS AND BUSHINGS

Reducers. Fig. No. 93. 1 inch sizes are hexagonal, without lugs.



Reducers Fig. 93



Bushings Fig. 94

Size, Inches	List per Doz.	Size, Inches	List per Doz.	Size, Inches	List per Doz.
3/4 x 1/2	\$ 6.50	1 1/2 x 1 1/4	\$12.00	2 1/2 x 1	\$22.00
1 x 3/4	6.50	2 x 3/4	13.00	2 1/2 x 1 1/4	23.00
1 1/4 x 3/4	8.00	2 x 1	14.00	2 1/2 x 1 1/2	24.00
1 1/4 x 1	10.00	2 x 1 1/4	16.00	2 1/2 x 2	26.00
1 1/2 x 3/4	11.50	2 x 1 1/2	18.00	3 x 2	30.00
1 1/2 x 1	11.50	2 1/2 x 3/4	20.00		
3/4 x 1/2 and 1 x 3/4 1 Inch.....	NET DOZEN, \$3.09				

DISCOUNT, Reducers .....LIST PLUS 9%  
DISCOUNT, Bushings .....LIST PLUS 9%

### CAST BRASS ICE SKATING POND SPRAY

Fig. 4709

For filling skating ponds with water from hydrants where the water pressure is high. It gives a smooth even surface to the ice. Cast brass body. 6-5/8 inch face. 10-3/8 inches long. Three sheet brass plates, 6 inches in diameter, each with different size perforations give a selection for various pressures and distances. 1-1/2 inch threaded connection. SPECIFY THREAD.

★ NET EACH, \$15.60





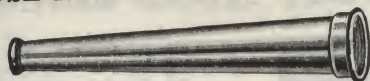
**HOSE NOZZLES—CAST BRASS**

Fig. No. 97

**★ NET PRICES PER DOZEN**

Size	Length	Discharge	★ Net Dozen
3/4 inch	3 inch	1/4 inch	\$3.70
3/4 inch	6 inch	1/4 inch	\$6.50
3/4 inch	8 inch	1/4 inch	\$7.40
1 inch	4 inch	5/16 inch	\$4.65
1 inch	8 inch	5/16 inch	\$8.35

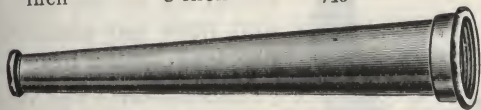


Fig. No. 97

**LIST PRICES PER DOZEN**

Size	Length	Discharge	List Dozen
1 1/4 inch	4 3/4 inch	3/8 inch	\$12.00
1 1/4 inch	10 inch	3/8 inch	\$15.00
1 1/4 inch	12 inch	3/8 inch	\$18.00
1 1/2 inch	5 3/4 inch	7/16 inch	\$18.00
1 1/2 inch	10 inch	1/2 inch	\$20.00
1 1/2 inch	12 inch	1/2 inch	\$22.00
2 inch	6 3/4 inch	9/16 inch	\$26.00
2 inch	12 inch	9/16 inch	\$34.00
2 1/2 inch	7 1/2 inch	5/8 inch	\$37.00
2 1/2 inch	12 inch	1 inch	\$55.00
2 1/2 inch	15 inch	1 inch	\$65.00
2 1/2 inch	18 inch	1 1/8 inch	\$80.00
2 1/2 inch	22 inch	1 1/8 inch	\$92.00

DISCOUNT, 1 1/4 x 4 3/4 in. and larger . . . 7% OFF

**HOSE NOZZLES TO WIND  
Cast Brass**

Fig. No. 24

**★ NET PRICES PER DOZEN**

Size 1/2 inch, length 4 inch . .	★ NET DOZEN, \$8.05
Size 3/4 inch, length 5 1/2 inch . .	★ NET DOZEN, \$8.05
Size 1 inch, length 6 inch . .	★ NET DOZEN, \$10.10

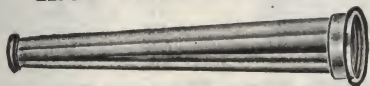
**IRON HOSE NOZZLES**

Fig. No. 248

We carry iron nozzles in stock both H. P. T. and I. P. T. in sizes listed below. There seems to be a demand for them in some places, as they are less likely to be stolen than brass nozzles.

**★ NET PRICES EACH**

Size 1 1/4 inch, length 12 inch . .	★ NET EACH, \$1.15
Size 1 1/2 inch, length 12 inch . .	★ NET EACH, \$1.29
Size 2 inch, length 12 inch . .	★ NET EACH, \$1.47
Size 2 1/2 inch, length 12 inch . .	★ NET EACH, \$2.02
Size 2 1/2 inch, length 15 inch . .	★ NET EACH, \$2.56

On nozzles with special threads, write for prices.

Note:—The above lists give standard discharges on hose nozzles and hose pipes and all stock orders are made up with this size of discharge. Discharges different from the above will be charged for extra according to the size of the order and the character of the work.

**HOSE PIPES WITH SCREW TIP  
Cast Brass**

Fig. No. 95

**★ NET PRICES PER DOZEN**

Size	Length Overall	Discharge	★ Net Dozen
3/4 inch	6 inch	1/4 inch	\$7.00
3/4 inch	7 1/2 inch	1/4 inch	\$8.00
3/4 inch	12 inch	1/4 inch	\$16.12
1 inch	8 inch	1/4 inch	\$10.08
1 inch	12 1/2 inch	1/4 inch	\$19.15



Fig. No. 95

**LIST PRICES PER DOZEN**

Size	Length	Discharge	List Dozen
1 1/4 inch	12 inch	3/8 inch	\$ 20.00
1 1/2 inch	12 inch	1/2 inch	\$ 24.00
1 1/2 inch	15 inch	1/2 inch	\$ 30.00
2 inch	12 inch	5/8 inch	\$ 38.00
2 inch	15 inch	5/8 inch	\$ 45.00
2 1/2 inch	15 inch	5/8 inch	\$ 75.00
2 1/2 inch	20 inch	1 inch	\$ 96.00
2 1/2 inch	24 inch	1 inch	\$100.00
2 1/2 inch	30 inch	1 inch	\$144.00

DISCOUNT, 1 1/4 x 12 in. and larger . . . 4% OFF

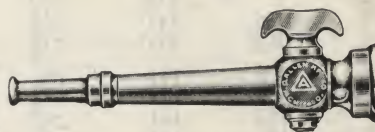
**HOSE PIPES WITH STOPCOCK  
Cast Brass**

Fig. No. 96

**★ NET PRICES PER DOZEN**

Size	Length Overall	Discharge	★ Net Dozen
	6 in.		\$16.12
3/4 in.	8 in.	1/4 in.	\$18.82
	12 in.		\$26.72
1 in.	7 1/2 in.	1/4 in.	\$22.18
	12 in.		\$29.57

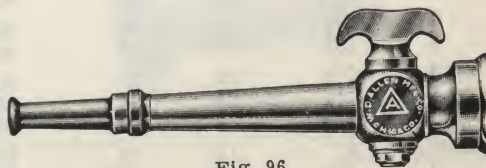


Fig. No. 96.

**★ NET DOZEN**

Size	Length Overall	Discharge	★ Net Dozen
1 1/4 in.	12 in.	3/8 in.	\$56.96
1 1/2 in.	12 in.	3/8 in.	\$78.32

**IMPORTANT—When ordering, always supply thread information, to avoid delay.**



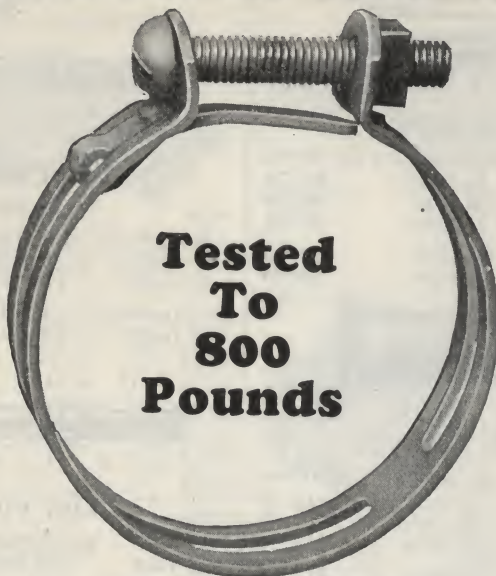
# ALLEN CADMIUM PLATED STEEL HOSE CLAMPS

Allen Cadmium Plated Hose Clamps are made of heavy sheet steel, and are plated by a superior process which effectually prevents rust within a reasonable length of time.

They are strong and serviceable and have lugs which engage the vise jaws, making it an easy matter to tighten the clamp onto the hose.

We ran a hydraulic test with 1 3/8 inch air brake hose,

After the hose was coupled, it was subjected



to a hydraulic pressure of 50 pounds, and increments of 50 pounds were made until a total of 800 pounds had been reached. Each 50 pound increase was held for two minutes and the clamps held securely at every interval up to 800 pounds and were not phased in any way by the test.

This severe test demonstrates conclusively that Allen Steel Hose Clamps have a large factor of safety when used on steam, water, or air hose under general commercial pressures.

Fig. 1923 (Patented in U. S. and Canada)

## Water Hose Sizes

Size, Inches	Ply	Inside Diam. of Clamp	No. of Clamps in Carton	Wt., Lbs. per Gro.	LIST DOZEN
1/4	3	1/2	144	3 3/4	\$0.34
3/8	2	9/16	144	3 3/4	\$0.34
3/8	3	5/8	144	3 3/4	\$0.34
3/8	4	11/16	144	4	\$0.34
1/2	2	3/4	144	4 3/4	\$0.34
1/2	3	7/8	144	5 1/4	\$0.34
1/2	4	15/16	144	5 1/4	\$0.34
1/2	5	1	144	6 1/2	\$0.34
5/8	2	1	144	6 3/4	\$0.38
5/8	3	1 1/16	144	6 3/4	\$0.38
5/8	4	1 1/16	144	7 1/2	\$0.38
3/4	2	1 1/16	144	6 3/4	\$0.38
3/4	3	1 1/8	144	7 3/4	\$0.38
3/4	4	1 3/8	144	7 3/4	\$0.38
3/4	5	1 1/4	144	7 3/4	\$0.38
1	3	1 3/8	72	11 1/2	\$0.76
1	4	1 7/8	72	12 3/4	\$0.76
1	5	1 9/8	72	13 1/4	\$0.76
1 1/4	3	1 11/16	36	19 3/4	\$1.50
1 1/4	4	1 13/16	36	20 1/4	\$1.50
1 1/4	5	1 7/8	36	21	\$1.50
1 1/2	3	2	36	22 1/4	\$1.80
1 1/2	4	2 1/8	36	22 1/2	\$1.80
1 1/2	5	2 3/16	36	27	\$1.80
1 3/4	3	2 1/4	24	33	\$2.10
1 3/4	4	2 3/8	24	33	\$2.10
2	3	2 1/2	24	33	\$2.20
2	4	2 5/8	24	34	\$2.20
2	5	2 11/16	24	40	\$2.20
2	Suction	3	12	48	\$2.75
2 1/4		3	12	46 3/4	\$2.50
2 1/4	4	2 13/16	12	47 1/2	\$2.50
2 1/2	3	3	12	48	\$2.75
2 1/2	4	3 1/16	12	48 1/4	\$2.75
2 1/2	5	3 3/16	12	50	\$2.75
2 3/4	3	3 1/4	12	50	\$3.70
2 3/4	4	3 3/4	12	50	\$3.70
3	3	3 1/2	Bulk	51	\$4.50
3	4	3 5/8	Bulk	51	\$4.50

## Steam Hose Sizes

Size, Inches	Ply	Inside Diam. of Clamp	No. of Clamps in Carton	Wt., Lbs. per Gro.	LIST DOZEN
1/2	4	1 1/16	144	7	\$0.76
1/2	5	1 1/16	144	7 3/4	\$0.76
1/2	6	1 5/16	144	9	\$0.76
3/4	4	1 3/8	72	13	\$1.10
3/4	5	1 1/2	72	14	\$1.10
3/4	6	1 1/2	72	14	\$1.33
1	4	1 11/16	36	19	\$1.66
1	5	1 13/16	36	20	\$1.66
1	6	1 13/16	36	20	\$1.66
1 1/4	4	1 15/16	36	21	\$2.00
1 1/4	5	2	36	22	\$2.00
1 1/4	6	2	36	22	\$2.00
1 1/2	4	2 1/4	24	36	\$2.32
1 1/2	5	2 3/8	24	36 1/2	\$2.32
1 1/2	6	2 3/8	24	36 1/2	\$2.32
2	4	2 11/16	12	38	\$3.66
2	5	2 7/8	12	48	\$3.66
2	6	2 7/8	12	48	\$3.66
2 1/4	4	2 15/16	12	59	\$4.20
2 1/4	5	3	12	61	\$4.20
2 1/4	6	3 1/16	12	63	\$4.20

## Large Size Heavy Clamps

Inside Diam. Inches	Weight Dozen Pounds	LIST DOZEN	Inside Diam. Inches	Weight Dozen Pounds	LIST DOZEN
2-3/4	5	\$3.95	4-1/8	9	\$6.56
2-7/8	6	\$4.21	4-1/4	9	\$7.21
3	7	\$4.47	4-3/8	9	\$7.35
3-1/8	7	\$4.67	4-1/2	9	\$8.00
3-1/4	7	\$4.75	4-5/8	9	\$8.40
3-3/8	8	\$4.88	4-3/4	10	\$8.79
3-1/2	8	\$4.96	4-7/8	10	\$9.19
3-5/8	8	\$5.08	5	10	\$9.58
3-3/4	8	\$5.25	5-1/4	11	\$9.98
3-7/8	8	\$5.78	5-3/8	11	\$10.35
4	9	\$5.90	5-1/2	11	\$10.76

**DISCOUNT** { 1 to 11 Each ..... **LIST NET**  
 { 1 to 11 Dozen ..... **20% OFF**  
 { 1 Gross or More ..... **33 1/3% OFF**

See Page 66 For Brass Hose Clamps



STAMPED SHEET BRASS HOSE CLAMPS

GARDEN HOSE SIZES



Fig. 3935

Size Hose, Inch	Ply	Inside Diam. Open	LIST DOZEN
3/16	3	7/16	\$0.52
1/4	3	1/2	\$0.52
3/8	2	5/8	\$0.52
3/8	2-1/2	11/16	\$0.52
3/8	3	3/4	\$0.52
1/2	2	7/8	\$0.52
1/2	3	15/16	\$0.52
1/2	4	1- 1/32	\$0.52
5/8	3	1- 1/32	\$0.52
5/8	4	1- 3/32	\$0.52
3/4	2	1- 3/32	\$0.52
3/4	3	1- 3/16	\$0.52
3/4	4	1- 1/4	\$0.52

WATER HOSE SIZES

Size Hose, Inch	Ply	Inside Diam. Open	LIST DOZ.
1	2	1-11/32	\$2.08
1	3	1- 7/16	\$2.08
1	4	1-17/32	\$2.08
1-1/4	3	1-21/32	\$2.60
1-1/4	4	1-13/16	\$2.60
1-1/2	3	1-15/16	\$3.12
1-1/2	4	2- 1/16	\$3.12
2	3 & 4	2- 9/16	\$4.16
2-1/4	3 & 4	2- 7/8	\$6.76
2-1/2	3 & 4	3- 1/16	\$7.28
3	3 & 4	3- 3/4	\$10.40

STEAM HOSE SIZES

Size Hose, Inch	Ply	Inside Diam. Open	LIST DOZ.
3/4	3	1- 7/16	\$2.08
3/4	4	1-17/32	\$2.08
1	3	1- 5/8	\$2.60
1	4	1-21/32	\$2.60
1-1/4	3	1-15/16	\$3.12
1-1/4	4	1-31/32	\$3.12
1-1/2	3 & 4	2- 7/32	\$3.64
1-1/2	5	2-13/32	\$4.16
2	3 & 4	2-11/16	\$5.72
2	5	2- 7/8	\$6.76
2-1/2	3 & 4	3- 1/4	\$8.84
2-1/2	5	3- 9/16	\$9.88

SMALL SIZES

Fig. No. 3488

For small size hose. One end of the band is bent over making a double thickness and then threaded for the brass bolt.

No.	Fits Hose, O. D.	LIST 100
1	3/8 inch	\$4.00
2	1/2 inch	\$4.00
3	5/8 inch	\$4.00



LARGE SIZES—DOUBLE BOLT



Fig. 4708

Made of extra heavy gauge sheet brass. Hexagon head bolts and square nuts.

Inside Diam.	4	4-1/4	4-1/2	4-3/4	5	5-1/4
LIST DOZEN	\$11.70	\$14.30	\$15.86	\$17.42	\$18.98	\$20.54
Inside Diam.	5-1/2	5-3/4	6	6-1/4	6-1/2	6-3/4
LIST DOZEN	\$22.10	\$23.66	\$25.22	\$27.04	\$29.12	\$31.20
Inside Diam.	7	7-1/4	7-1/2	7-3/4	8	8-1/4
LIST DOZEN	\$33.28	\$35.36	\$37.44	\$39.12	\$41.60	\$43.68
Inside Diam.	8-1/2	8-3/4	9	9-1/4	9-1/2	10
LIST DOZEN	\$45.76	\$47.84	\$49.92	\$52.00	\$54.08	\$58.24

GARDEN HOSE VALVES

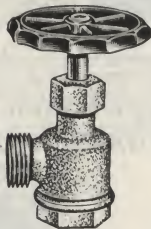


Fig. 25



Fig. 173

Fig. 25. Made of cast brass in the 3/4 inch size only. The discharge is at right angles, 3/4 inch H. P. T. The inlet is 3/4 inch I. P. T. Leather disc. Enameled cast iron wheel. Height, 4 inches. 7/8 pound, each.

LIST EACH .....\$0.90

Fig. 173. California pattern. Cast brass. I. P. T. inlet.

Inlet Inches	Outlet Inches	Net Wt. Lbs.	LIST EACH
1/2 I. P. T.	3/4 H. P. T.	15/16	\$0.90
3/4 I. P. T.	3/4 H. P. T.	7/8	\$0.90
1 I. P. T.	3/4 H. P. T.	1- 3/8	\$1.40
1 I. P. T.	1 I. P. T.	1- 1/2	\$1.40

"BULL-DOG"  
CAST BRASS  
HOSE CLAMPS

Fig. 207

(Registered Trade Mark)



Heavy, strong and serviceable, nut lock shoulder, rigid lugs, pliable band, tongue and groove interior construction, hugs hose tight and assures uniform pressure.

WATER HOSE SIZES

Size, Inch	Ply	I. D. of Clamp	LIST DOZEN
1	3	1-7/16	\$2.08
1	4	1-1/2	\$2.08
1-1/4	3	1-11/16	\$2.60
1-1/4	4	1-3/4	\$2.60
1-1/2	3	1-7/8	\$3.12
1-1/2	4	2-1/16	\$3.12
2	3	2-5/16	\$4.16
2	4	2-1/2	\$4.16
2-1/2	3	2-13/16	\$7.28
3	4	3-3/16	\$10.40

STEAM HOSE SIZES

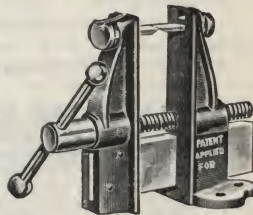
Size, inch	Ply	I. D. of Clamp	LIST DOZEN
1	4	1-5/8	\$2.60
1	5x6	1-3/4	\$2.60
1-1/4	4	2	\$3.14
1-1/4	5x6	2-1/16	\$3.14
1-1/2	4	2-1/4	\$3.64
1-1/2	5x6	2-7/16	\$4.16
2	4	2-1/2	\$5.72
2	5	2-5/8	\$6.76
2-1/2	4	2-7/8	\$8.84

HOSE CLAMP VISE

Fig. 2034

For attaching and tightening hose clamps. Will accommodate any size of hose up to 2-1/2 inch. Indispensable where any amount of hose coupling is done. Steel jaws.

LIST EACH, \$10.00



CAST BRASS HOSE MENDERS



Fig. No. 76

Standard for mending the larger sizes of hose. Our menders are full size and weight.

1 1/4 inch	LIST DOZEN, \$5.70
1 1/2 inch	LIST DOZEN, \$7.60
2 inch	LIST DOZEN, \$13.30
2 1/2 inch	LIST DOZEN, \$19.00
3 inch	LIST DOZEN, \$34.20

CAST BRASS SUCTION HOSE STRAINERS

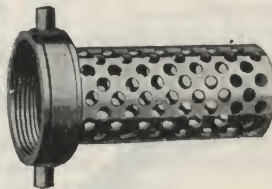


Fig. 128

For fire department and industrial use. A heavy cast brass strainer with holes drilled clean and smooth. Female connection with clean, sharp threads. The total area of the strainer holes is over 2-1/2 times the area of the hose opening.

Size Inches	LIST EACH	Size Inches	LIST EACH
1	\$7.44	3-1/2	\$27.90
1-1/4	\$9.30	4	\$35.35
1-1/2	\$13.02	4-1/2	\$46.50
2	\$13.95	5	\$57.65
2-1/2	\$15.80	6	\$85.55
3	\$18.60		

DISCOUNT ..... 20% OFF



**ALL STEEL GARDEN TOOLS**

Stamped from one piece of heavy sheet steel. No wooden handle to break or come off. Very strong and durable. Black finish.



Fig. No. 3284

No. 2—Garden Trowel.

★ NET EACH, \$0.10



Fig. No. 3296

No. 3—Transplanter.

★ NET EACH, \$0.10



Fig. No. 3092

No. 4—Weeder.

★ NET EACH, \$0.10

**KELLY GRASS HOOKS**

Perfect temper. Forged, high grade steel. These grass hooks WILL cut grass. New brilliant lacquer finish. Light, strong and nicely balanced. Blade is shaped and set so that the POINT TURNS UPWARD naturally, avoiding the tendency to dig.



Fig. 4064

Hand made. Black forge finish. Offset. Oval hickory handle, stained walnut.

★ NET EACH, \$0.30



Fig. 4065

Rustless, smooth black finish. 12 inch blade. Detachable, oval hickory handle, lacquered brilliant red.

★ NET EACH, \$0.38

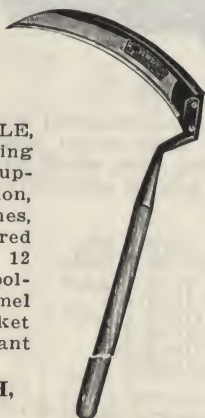


Fig. 4066

LONG HANDLE, for easy cutting from a natural upright position, white, 44 inches, with tip lacquered brilliant red. 12 inch blade, polished, blue enamel finish, with socket lacquered brilliant red.

★ NET EACH, \$0.80

**"VILLAGE BLACKSMITH" SHEARS****Pruning Shears**

Fig. No. 2296

No. R-10. Cast handles, japanned, 8½ inches long.

★ NET EACH, \$0.50

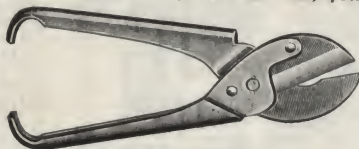


Fig. No. 2485

No. V-11. 1 pc., all-steel, japanned finish. A splendid shear at the price.

★ NET EACH, \$0.60



Fig. No. 2297

No. V-12. Steel blade, japanned handle, 9 inches long.

★ NET EACH, \$0.60

**DOO-KLIP PRUNER**

Fig. 4306

For pruning all shrubbery. Blades are at right angles to handle so when pruner is held in a natural position of the hand a long, healthy, diagonal cut is made. Bruise caused by holding blade is on stalk which is cut off. Self-tensioning. High carbon steel, case hardened blades. Pinch proof handles enameled jade green. 7¼ inches long. ½ inch cutting capacity. Guaranteed.

★ NET EACH, \$0.95

**PLEASURE TRIM LAWN SHEARS**

A new, pleasant and easy way of trimming your lawn. The user stands erect at all times with the hands and arms in a natural position. No crouching or back-aches. A real grass trimmer for close quarters—a round flower beds, shrubs, trees, walks, etc. Easy and simple to operate. Made of the best materials. Will withstand hard use. Packed 5 in a bundle.

★ NET EACH, \$0.90



Fig. 4209

**Hedge Shears**

Fig. No. 2298

Solid crucible steel forged blades; notched; with offset shank.

6 inch blade...★ NET EACH, \$0.80  
8 inch blade...★ NET EACH, \$1.50  
9 inch blade...★ NET EACH, \$1.60  
10 inch blade...★ NET EACH, \$1.90

**Grass Shears**

Fig. V-53

6-inch blade, hollow ground, fully polished all over; weight, 9 lbs. per dozen.

★ NET EACH, \$0.60



Fig. No. V-2

Good quality 6-inch forged blade. Blade edges and bevels polished. Handle and bow enameled in green. Weight about 8½ lbs. per dozen.

★ NET EACH, \$0.40

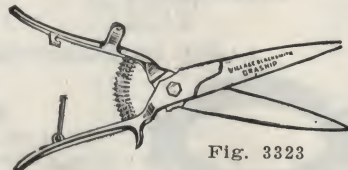
**"V-B" GRASNIP**

Fig. 3323

A very practical Shear for cutting grass, light vines, etc. Full polished cutlery steel blades 6 inches long, malleable handles, red duco finish. Ground, tempered and set equal to the best cloth shear.

★ NET EACH, \$0.45

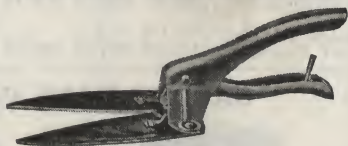
**SNIP-ITT GRASS SHEAR**

Fig. 4304

Cold-rolled steel blades. Self-tensioning. Handles enameled red, 11½ inches long. 4½ inch capacity.

★ NET EACH, \$0.75

**DOO-KLIP GRASS SHEAR**

Fig. 4305

Easy working, up and down moving, pinch-proof handles, enameled jade green. Leaves hand, arm and wrist in a natural position. Self-tensioning. Blades are case hardened, cadmium plated, polished and are rust-proof. Powerful leverage. 11¼ inches long. 5½ inch cutting capacity. Guaranteed.

★ NET EACH, \$1.10

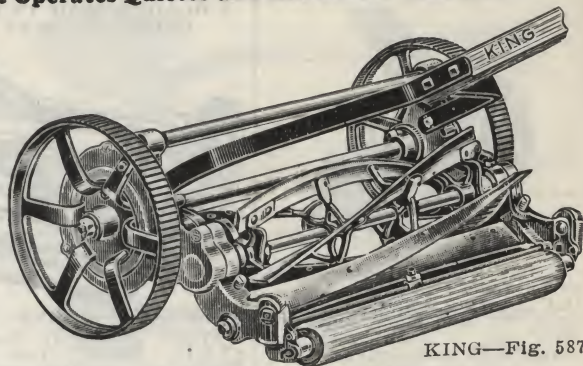


# LAWN MOWERS

## KING TRIPLE GEAR BALL BEARING LAWN MOWER

Furnished With Two Slip-On Rubber Tires—It Operates Quieter and Has Better Traction!

Spoked wheels, 10 inches in diameter. Drives on both sides. Noiseless and light running. Friction is reduced to a minimum. All blades are crucible cast steel, tempered in oil. Revolving knives are double riveted at the end. Revolving cutter is 6 inches in diameter. Patented adjustment for center of stationary knife as well as each end, this not on any other mower. Stationary knife bar mounted on cones. Detachable tempered saw steel stationary knife. Four complete sets of ball bearings. Patented ball retainer. Ball bearing cups and cones will never wear or require adjustment. Attachment for grass catcher. Extra large hardwood varnished handle. Hardwood roller. Special arrangement of handle for terrace cutting.



KING—Fig. 587

### ★ NET EACH MOWER

With Two Slip-On Rubber Tires

14 Inch	16 Inch	18 Inch	20 Inch
\$11.55	\$12.50	\$14.50	\$15.50

Five Crucible Cast Steel Revolving Blades. Four Complete Sets of Ball Bearings. Ball Bearing Driving Wheels. Ball Bearing Revolving Cutter. Patented Adjustment for Center Bed Knife. Triple or Train of Gear. Self Sharpening. The most perfect lawn mower.

### PNEUMATIC TIRED LAWN MOWER

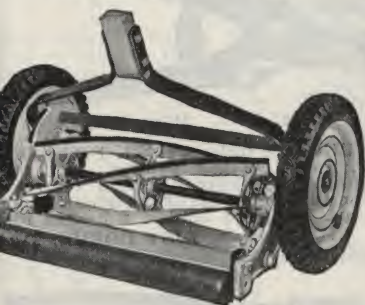


Fig. 5172

Extremely easy and quiet operation. No jar, and no vibration. Accurate adjustment is maintained. The rubber insulated bumper rod prevents injury to trees or tender shrubbery. The extra heavy non-skid tread gives better traction. 6 inch diameter reel with 5 knives, automatic adjusting ball bearing. 10-1/2 inch diameter wheels. Cutting range is 1/2 to 1-1/2 inch.

16 Inch.....	★ NET EACH, \$9.15
18 Inch.....	★ NET EACH, \$9.70
20 Inch.....	★ NET EACH, \$10.25

### NO. 5 BALL BEARING LAWN MOWER

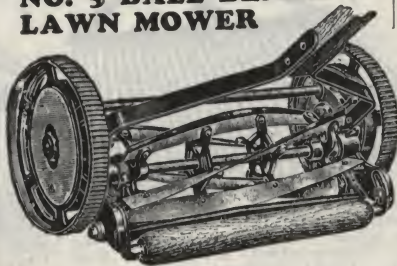


Fig. 538

A five blade, self-sharpening, easy running, high quality lawn mower at a moderate price. 10 inch diameter, closed type wheels. Ball bearing reel, 6 inches in diameter. 5 heavy, heat treated, crucible steel knives. 4 malleable alloy spiders. Patented ball bearing device with cups and cones GUARANTEED NEVER TO WEAR OUT or require adjustment. The lower knife is detachable and is made of heavy-lipped crucible steel and tempered in oil. Set screw adjustment that is accurate, simple and precise.

14 Inch	16 Inch	18 Inch	20 Inch
\$7.00	\$7.50	\$8.00	\$8.50
★ Net Pair Extra For Rubber Tires			
For 10 by 1-1/8 Inch Wheels \$0.70			
For 10 by 1-1/4 Inch Wheels \$0.70			

### AERO RUBBER TIRED BALL BEARING MOWER

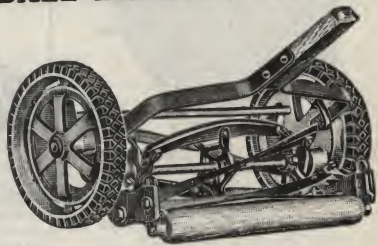


Fig. 5201

It is quieter and has better traction than the steel wheels. Easy running and self-sharpening. 10 inch diameter wheels. SOLID RUBBER NON-SKID TIRES. Ball bearing revolving cutter, 6 inches in diameter. Heat treated crucible steel knives. Ball bearing assembly with cups and cones GUARANTEED never to wear out or require adjustment. Malleable alloy spiders. Simple, accurate adjustment. Sturdy knife bar. Five crucible steel bed knife tempered in oil. The shrub rod and reel shaft are both 5/8 inch diameter steel.

16 Inch—4 Blades	★ NET EACH, \$6.50
16 Inch—5 Blades	★ NET EACH, \$6.80
18 Inch—4 Blades	★ NET EACH, \$6.80
18 Inch—5 Blades	★ NET EACH, \$7.25

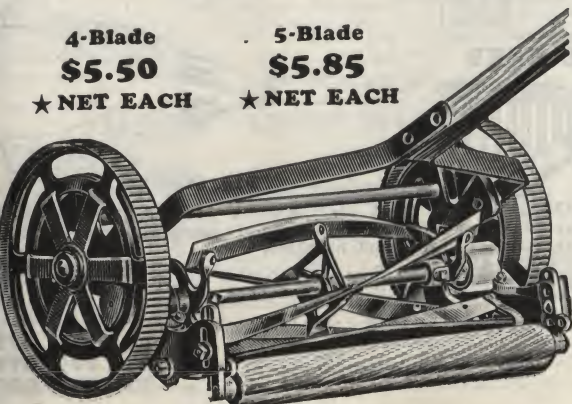
### INDIAN BALL BEARING LAWN MOWER

4-Blade  
\$5.50

5-Blade  
\$5.85

★ NET EACH

★ NET EACH



Comparison will convince you that this Lawn Mower is SUPERIOR to others at an equal price.

Fig. 4067

A self-sharpening, easy running Lawn Mower that is low in price but well made in every particular. 10 inch diameter wheels with 1-1/8 inch tread. The revolving cutter is 6 inches in diameter, ball bearing. Heat treated crucible steel knives. Patented ball bearing assembly with cups and cones GUARANTEED never to wear out or to require adjustment. Malleable alloy spiders. NO troublesome springs. Detachable bed knife of crucible steel and oil tempered. The knife bar is mounted on shoulders. The shrub rod and reel shaft are both 5/8 inch diameter steel.

Fig. 4067-4. 16 Inch. 4 Blade	★ NET EACH, \$5.50
Fig. 4067-5. 16 Inch. 5 Blade	★ NET EACH, \$5.85



# GARDEN TOOLS

## RUGGED LAWN TRIMMER

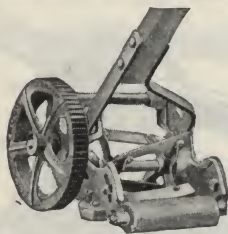


Fig. 4378

Trims clean along walks, curbs, fences, flower beds, etc. Ball bearing. Self-adjusting. Gold, red, and black finish. 6 inch cut. 8 inch wheel. 4 high grade steel knives.

★ **NET EACH, \$4.10**  
No Discount

## GRASS CATCHERS



Fig. 2010

Galvanized sheet iron bottom. **G10.** Light canvas. For 14, 16 and 18 inch mowers.

**LIST DOZEN, \$10.50**

**G12.** Heavy canvas. For 16, 18 and 20 inch mowers.

**LIST DOZEN, \$12.60**

## STEEL GARDEN RAKES



Fig. 5178

Light level head. Straight teeth. 5 foot handle. Plain ferrule. Weight dozen, 30 pounds.

Teeth	Grade	DOZEN
14	Panther	\$7.92
16	Panther	\$10.08



Fig. 5177

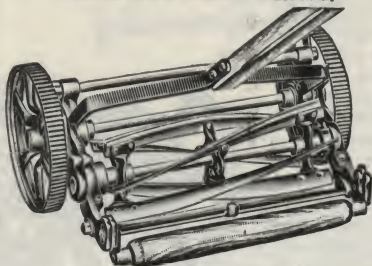
Round bow. Forged from one solid piece of steel. Curved teeth. 5 foot handle. Weight dozen, 33 pounds.

Teeth	Grade	DOZEN
14	True Temper	\$15.60
16	True Temper	\$16.80
14	Panther	\$12.24
16	Panther	\$13.68

**DISCOUNT** 1 to 5  
Except Figs. 4378 and 4068 5 to 11  
12 or More

## PUTTING GREEN BALL BEARING LAWN MOWER

7 BLADES. LOW CUTTING FOR CREEPING BENT GRASS.



PUTTING GREEN—Fig. 4068

Triple gear. 10 inch diameter wheels. Drives from both sides. Blades are crucible cast steel, tempered in oil. 7 revolving knives. Adjustable and removable saw steel stationary knife. 4 sets of ball bearings. Attachment for grass cutter.

18 Inch... ★ **NET EACH, \$20.90**  
No Discount

## KLEEN SWEEP RAKE

Fig. 4168



Strong and flexible. 32 fine, curved teeth made of high carbon spring steel. Rakes clean on old or new lawns. Light weight, 16 ounces. Handle riveted to head. Steel brace.

**LIST DOZEN, \$10.00**

## LAWN COMB RAKES

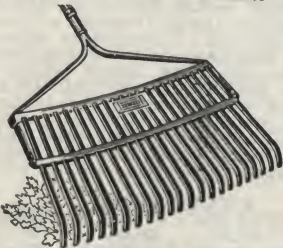


Fig. 5280

New socket pattern. 24 flexible flat spring steel teeth. Light weight.

Width, Inches	Teeth, Inches	Handle, Inches	LIST, DOZEN
18	8	42	\$13.90
24	9-1/2	60	\$19.20

## OLE OLSEN WOOD RAKE



Ole Olsen, Fig. 3825

Patented wood rake with 26 clinched teeth. Teeth are made of extra selected tough hickory and forced into head. Seasoned ash handles, sanded. Heads shellacked.

**LIST DOZEN, \$10.00**

## SEYMOUR SMITH PRUNING SHEARS

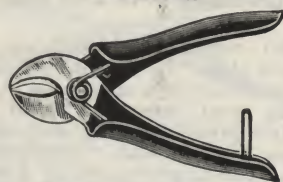


Fig. 5173. Mfrs. 14.

UTILITY. 6-1/4 inches long. Made of unbreakable tempered steel throughout. Blued finish.

**LIST DOZEN, \$3.00**



Fig. 5174. Mfrs. 300

CALIFORNIA PATTERN. Malleable iron handles with spring end catch and bright tool steel riveted blade, fitted with volute spring and plain bolt and nut. Green enameled handles. 9 inches long.

**LIST DOZEN, \$6.00**



Fig. 5175. Mfrs. 122

CLIPPER. A light weight, husky, high quality, easy cutting pruner. All steel. Blade and hook hardened and tempered. New improved catch. Blue-black finish. Plain nut. Polished blades. 8 inches long.

**LIST DOZEN, \$12.00**

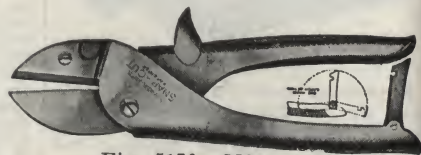


Fig. 5176. Mfrs. 119

SNAP-CUT. An extra fine, extra easy cutting pruning shear. Light in weight. Strong. Durable. Chrome finish. Non-pinching handles. With spring one hand catch. Will easily cut twigs, branches, etc. up to 3/4 inch. 8 inches long.

**LIST DOZEN, \$21.00**

## ESSEX HEDGE SHEARS



Fig. 5180

Full size, hollow ground, cutlery steel blades. Hardwood natural colored wax finished handles.

6 Inch	LIST DOZEN, \$9.12
8 Inch	LIST DOZEN, \$11.40
9 Inch	LIST DOZEN, \$13.92
10 Inch	LIST DOZEN, \$16.56

5% OFF  
10% OFF  
20% OFF



# GARDEN TOOLS

## FIELD AND GARDEN HOES

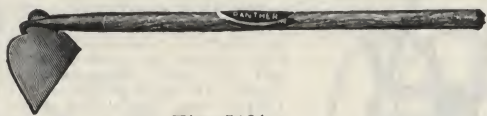


Fig. 5181

4-1/3 foot handle. Weight dozen, about 25 pounds.  

Handle, Feet	Width Blade	LIST DOZEN
4	6-1/2	\$12.25
4-1/3	7	\$9.00

## TRUE TEMPER TURF EDGER



Fig. 5182

Shank pattern. 4 foot handle. Second grade. 6 in. blade. Weight dozen about 29 pounds.  
 LIST DOZEN, \$9.60

## SPEEDY CULTIVATOR



Fig. 5183

Four sharp pointed tines are hung just right to easily penetrate the soil with a pulling motion. A very fast working tool for preparing the ground for seeding and for cultivating. Width 5 inches. 4-1/3 foot handle. 6 in bundle. Weight dozen about 22 pounds.  
 True Temper ..... LIST DOZEN, \$12.60

## JUNIOR INVINCIBLE GARDEN CULTIVATOR



Fig. 5184

Oxford Brand Cultivator. 3 adjustable curved teeth edged from 7/32 inch square steel bar. Bolted between two malleable plates. Maximum spread of teeth 4-1/4 inches. 4 foot handle 6 in bundle. Weight dozen about 19 pounds.  
 LIST DOZEN, \$10.40

## INVINCIBLE GARDEN CULTIVATOR



Fig. 5185

True Temper grade 1. Five adjustable curved teeth edged from 1/4 inch square steel bar. The teeth are held in place by individual eye bolts fastened to forged steel pad, making it possible to remove any tooth or just the spread of teeth to suit the width of row. Pocket type. 4-1/3 foot handle. 6 in bundle. Weight dozen about 40 pounds.  
 LIST DOZEN, \$15.00

## ALENCO GARDEN SPADE



Fig. 1752B

Full polished. Size No. 2. Blade is 7-1/4 inches wide by 12 inches long. Weighs about four and two thirds pounds.  
 LIST DOZEN, \$20.80

## ALENCO ROUND POINT GARDEN SHOVEL



Fig. 1748

Full polished. Plain back. Round point. Size No. 2. Blade is 9 inches wide by 11-3/4 inches long. Weighs about four and a half pounds.  
 LIST DOZEN, \$20.80

## ALENCO LONG HANDLE ROUND POINT SHOVEL

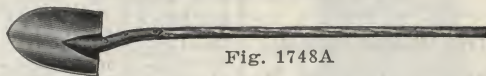


Fig. 1748A

Full polished. Plain back. Long handles. Size No. 2. Blade is 9-1/4 inches wide by 11-7/8 inches long. Weighs about four and two thirds pounds.  
 LIST DOZEN, \$20.80

## FOUR TINE SPADING FORKS

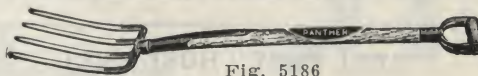


Fig. 5186

Strap ferrule. 30 inch handle with steel D grip. Heavy angular back tines. Weight dozen, about 56 pounds.  
 Oxford ..... LIST DOZEN, \$17.40  
 Panther Brand ..... LIST DOZEN, \$15.84

## THREE TINE HAY FORK

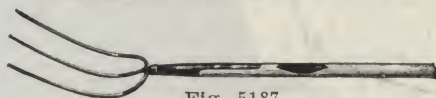


Fig. 5187

Twelve inch oval tines. Strap ferrule. Bent long handle. Weight dozen, about 32 pounds.

Brand	Handle Feet	LIST DOZEN
True Temper	4	\$17.40
True Temper	4-1/2	\$18.00
Oxford	4	\$14.40
Oxford	4-1/2	\$15.00
Panther	4	\$13.00
Panther	4-1/2	\$13.70

## FOUR TINE MANURE FORKS



Fig. 5188

Four oval tines. Strap ferrule. Bent handle.

Brand	Kind of Handle	Handle Feet	LIST DOZEN
Oxford	Long	4-1/2	\$16.80
Panther	Long	4-1/2	\$15.12
Oxford	"D"	2-2/3	\$16.20
Panther	"D"	2-2/3	\$14.40

## FIVE TINE MANURE FORKS

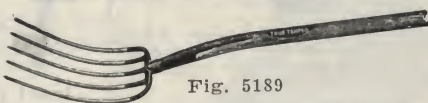


Fig. 5189

Five oval tines. Strap ferrule. Bent handle.

Brand	Kind of Handle	Handle Feet	LIST DOZEN
Oxford	Long	4-1/2	\$18.60
Panther	Long	4-1/2	\$17.28
Oxford	"D"	2-2/3	\$18.00
Panther	"D"	2-2/3	\$16.56

**DISCOUNT**

1 to 5	5% OFF
6 to 11	10% OFF
12 or More	20% OFF



## GARDEN HOSE REELS



Fig. No. 580

## DUDE HOSE REEL

Capacity, 100 feet  $\frac{3}{4}$  in. hose. Cheap reel, but substantial, natural wood finish

★ NET EACH, \$0.75

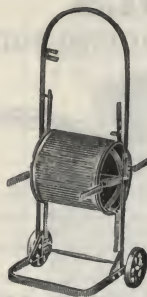


Fig. No. 582-A

## MAGIC HOSE REEL

Capacity, 100 ft. of  $\frac{3}{4}$  in. hose. All steel frame and base,  $\frac{3}{4}$  in. by 16 gauge channel steel. Winding drum, 8 in. diameter, corrugated, galvanized iron. Wheels, sturdy gray iron castings. 36 in. high, 12 in. wide and weighs 9 lbs. Finish, green enamel all over with drum natural galvanized finish.

★ NET EACH, \$0.90

## "REEL EEZY" HOSE REEL

A reel that makes it easy to take in your hose when it should be—easy to coil it properly without bends or kinks—easy to hang it out of the way in tool house or garage. It simply rolls along the ground and takes up the hose as it rolls. It does not tip over or break and cannot pinch your fingers. It is light and easy to carry and is strongly built.

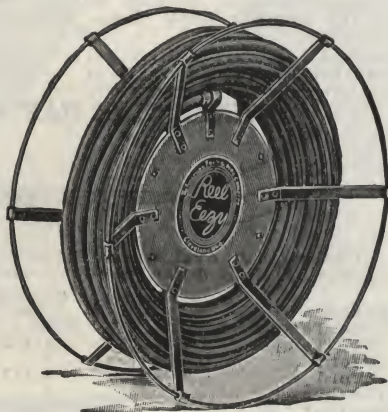


Fig. No. 2937

★ NET EACH, \$1.35

## WATER-WEIGHT LAWN ROLLERS

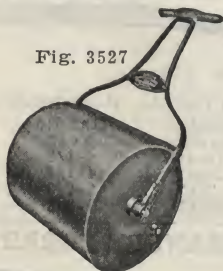
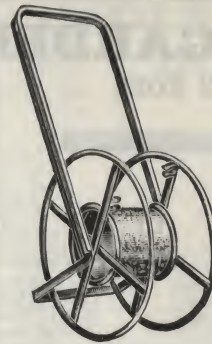


Fig. 3527

Rollers weigh 50% more when filled with sand—water is more convenient. Painted green on body and ends with red handles.

No.	Diam. Inches	Length Inches	Approx. Weight Empty	Filled With Water	★ NET EACH
<b>WITH PLAIN BEARINGS</b>					
1	14	15	45 lbs.	115 lbs.	\$7.62
2	14	24	68 lbs.	175 lbs.	\$8.05
4	18	24	82 lbs.	265 lbs.	\$9.50
<b>WITH ROLLER BEARINGS</b>					
5	18	24	85 lbs.	265 lbs.	\$12.95
7	24	24	110 lbs.	420 lbs.	\$14.95
9	24	32	130 lbs.	565 lbs.	\$16.50



## ALL STEEL GARDEN HOSE REELS

Fig. 4456

Channel steel frame. Round steel rims, 21 inches in diameter. Galvanized drum,  $8\frac{1}{2}$  inches in diameter. Cannot tip over when unreeling. Easy to move about. The frame can be tilted down to the ground and forms a stand in which the reel revolves. Finished green enamel. Capacity is 100 feet of  $\frac{3}{4}$  inch garden hose.

★ NET EACH, \$1.50

## SOLAR SELF-CLOSING RECEPTACLES

Fig. No. 3392

For use wherever waste accumulates. Enclosed yet ever open. Fireproof, sanitary, vermin proof, labor saving and long lived. Constructed of steel and pleasingly finished. Non-rusting brass feet painted to match finish (except No. 3), gravity swinging top with one moving part. Silent in operation. No keep once cans are installed. Prices on additional inner containers furnished upon application. Note: No. 130 is the most popular size for all around use.



No.	Base Size Inches	Body Height Inches	Overall Height Inches	Equipped With	Shipping Weight Pounds	Green or Gray Enamel	White Enamel
3	9 x 9	6	10 $\frac{3}{4}$	12 paper bags	8 lbs.	\$4.00	\$4.40
5	9 x 9	14 $\frac{1}{2}$	19	12 paper bags	12 lbs.	\$5.00	\$5.40
10	11 $\frac{1}{2}$ x 11 $\frac{1}{2}$	18 $\frac{1}{4}$	24 $\frac{1}{4}$	12 paper bags	19 lbs.	\$6.00	\$6.50
12	11 $\frac{1}{2}$ x 11 $\frac{1}{2}$	27 $\frac{3}{4}$	34	1 galv. can	31 lbs.	\$8.25	\$9.00
15	11 $\frac{1}{2}$ x 11 $\frac{1}{2}$	35	41 $\frac{1}{4}$	1 galv. can	34 $\frac{1}{2}$ lbs.	\$9.00	\$9.75
130	16 x 16	26 $\frac{3}{4}$	34 $\frac{3}{4}$	1 burlap bag	43 lbs.	\$10.00	\$11.00
145	16 x 16	30 $\frac{1}{2}$	38 $\frac{3}{4}$	1 burlap bag	49 $\frac{1}{2}$ lbs.	\$11.00	\$12.00
50	21 x 21	35 $\frac{1}{2}$	46 $\frac{1}{4}$	1 burlap bag	89 $\frac{1}{2}$ lbs.	\$15.00	\$17.50
140	16 x 16	30 $\frac{1}{2}$	38 $\frac{3}{4}$	1 burlap bag	58 lbs.	\$13.00	.....
60	21 x 21	36 $\frac{3}{4}$	47 $\frac{1}{4}$	1 burlap bag	102 lbs.	\$20.00	.....
60A	Same 60 with advertising sign frames				115 lbs.	\$23.00	.....

1 or 2 ..... LIST NET  
3 to 5 ..... 10% OFF  
6 or More ..... 20% OFF

## SETTEE

Steel Frame, Wood Slats



Fig. 3966

Ideal for outdoor use on lawns, parks, cemeteries, etc. Steel frame, strongly braced and finished in green. Wood slats finished in orange. Shipped knocked down. Quickly and easily assembled. 42 inches long, 36 inches high and 18 inches wide. Weight, 20 pounds.

★ NET EACH, \$2.15

## SCYTHES

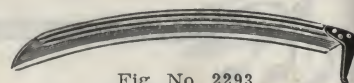


Fig. No. 2293

No. V-500. All Steel Forged Scythes, riveted securely to forged heels.

★ NET EACH, \$1.25

## ONE RING SCYTHE SNATHES



Fig. No. 2294

A serviceable and well known pattern, made from selected grain stock.

★ NET EACH, \$1.25



### ALL METAL HOSE REELS

For garden hose or cotton rubber lined hose. Easy reeling and unreeling. Tubular steel rims and frame. Corrugated drum on sizes 10 and 20. Hose reels on metal bars on sizes 30 and 35.

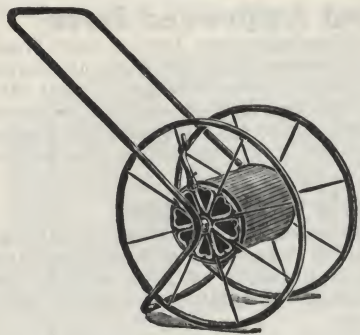


Fig. 585

**SIZE 10.** 21 inch diameter rim. Holds hose; 100 feet, 3/4 inch; or 50 feet, 1 inch. Weighs 15 pounds.

**★ NET EACH, \$4.80**

**SIZE 20.** 24 inch diameter rim. Holds hose; 150 feet, 3/4 inch; or 75 feet, 1 inch. Weighs 17 pounds.

**★ NET EACH, \$5.40**

**SIZE 30.** 29 inch diameter rim. Holds hose; 400 feet, 3/4 inch; to 100 feet, 2 inch. Shipping weight, 30 pounds.

**★ NET EACH, \$8.65**

**SIZE 35.** 32 inch diameter rim. Holds hose; 600 feet, 3/4 inch; to 200 feet, 2 inch. Shipping weight, 52 pounds.

**★ NET EACH, \$15.90**

### STEEL WAREHOUSE CART

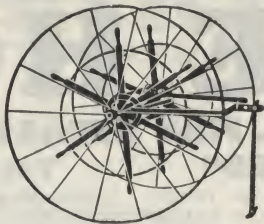


Fig. 2178

Iron frames and wheels, nicely painted and striped. Capacity given is for cotton rubber lined fire hose.

No.	Diam. Wheels Inches	Capacity		★ NET CART
		Feet	Inches	
1	56	500	2 1/2	\$49.00
2	48	300	2 1/2	\$42.00
3	42	{ 150 200 200	{ 2 1/2 2 3/4	\$37.00
4	36	{ 150 100	{ 1 1 1/2	\$20.00

### No. 40R HAND HOSE CART

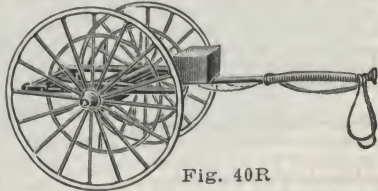


Fig. 40R

Capacity, 500 feet 2 1/2 in. single jacket hose, hand forged heavy steel frame, 52 in. Sarven wheels, solid forged axles, metal hose reel, tool box, 25 feet of drag rope, friction roller on rear, complete with fire axe and crowbar, painted red. Weight crated, 300 lbs.

**★ NET EACH, \$95.00**

### PARK OR WAREHOUSE REELS

Strong. Compact. Serviceable. Tubular steel frames. Steel wheels. SPECIFY number and size of reel when ordering.

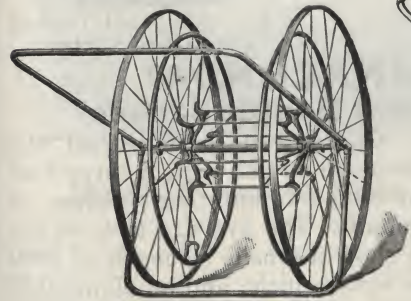


Fig. 480. Style C

For Parks, Greenhouses, Etc.

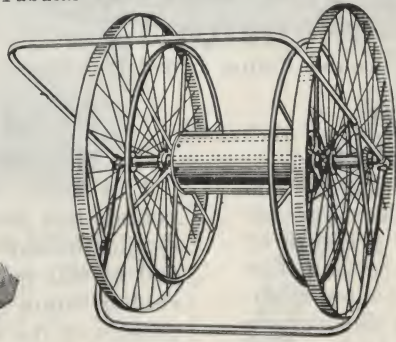


Fig. 481. Style D

For Industrial Use, Etc.

Fig. 480. Style C				Fig. 481 Style D		
Size No. of Reel...	21	31	32	41	51	61
Height of Wheels...	28 in.	34 in.	38 in.	42 in.	48 in.	52 in.
Outside width over all .....	25 in.	27 in.	35 in.	38 in.	46 in.	52 in.
Shipping weight....	45 lbs.	58 lbs.	100 lbs.	150 lbs.	185 lbs.	200 lbs.
For Hose	Capacity			Capacity		
¾ in. 3 ply Rubber.	200 ft.	500 ft.	800 ft.	.....	.....	.....
1 in. 4 ply Rubber.	100 ft.	200 ft.	350 ft.	.....	.....	.....
1¼ in. 4 ply Rubber.	75 ft.	150 ft.	250 ft.	.....	.....	.....
1½ in. 4 ply Rubber.	.....	.....	.....	250 ft.	400 ft.	500 ft.
2 in. 4 ply Rubber.	.....	.....	.....	200 ft.	300 ft.	400 ft.
2½ in. 4 ply Rubber.	.....	.....	.....	150 ft.	250 ft.	300 ft.
1¼ in. C.R.L. ....	150 ft.	300 ft.	500 ft.	.....	.....	.....
1½ in. C.R.L. ....	100 ft.	200 ft.	350 ft.	500 ft.	650 ft.	800 ft.
2 in. C.R.L. ....	75 ft.	150 ft.	250 ft.	350 ft.	500 ft.	600 ft.
2½ in. C.R.L. ....	50 ft.	100 ft.	200 ft.	250 ft.	400 ft.	500 ft.
★ NET EACH....	\$13.25	\$16.35	\$33.00	\$40.00	\$51.00	\$62.50

### FIREMEN'S RUBBER COATS



Fig. 501C

SPECIFY CHEST MEASUREMENTS

A standard regulation coat for Fire Department use. Also being used in some industries where extra weight and extra service are required. Fine quality black dull finish rubber on heavy drill. Double coated on both sides. Full corduroy collar. 5 galvanized snap and rig fasteners. 1 inside pocket. Storm-fly front. Reinforced under arms. Straps on sleeves at the wrist. Seams are sewed and cemented. Arms are sewed, cemented and strapped. 46 Inch Length.

**★ NET EACH, \$7.75**

48 inch lengths or longer, extra for each 2 inches... **★ NET EXTRA, \$0.35**

### FIREMEN'S LEATHER HATS



Fig. 500

The illustration shows the Chicago Regulation 8 cone Leather Service Hat. SPECIFY SIZE. **★ NET EACH** Chicago Regulation ..... \$12.00 Reinforced Leather ..... \$11.50 Aluminum ..... \$11.00

### FIREMEN'S OILED KHAKI HATS



Fig. 2486

Popular low-priced. Very serviceable. For firemen's or industrial use. Made of oiled heavy khaki. Furnished in either black, yellow or olive color. SPECIFY SIZE AND COLOR.

**★ NET DOZEN, \$6.00**



# 2½ INCH COTTON RUBBER LINED FIRE HOSE

FOR MUNICIPAL FIRE DEPARTMENT SERVICE

## Easy Fold, "FLAT CURED"

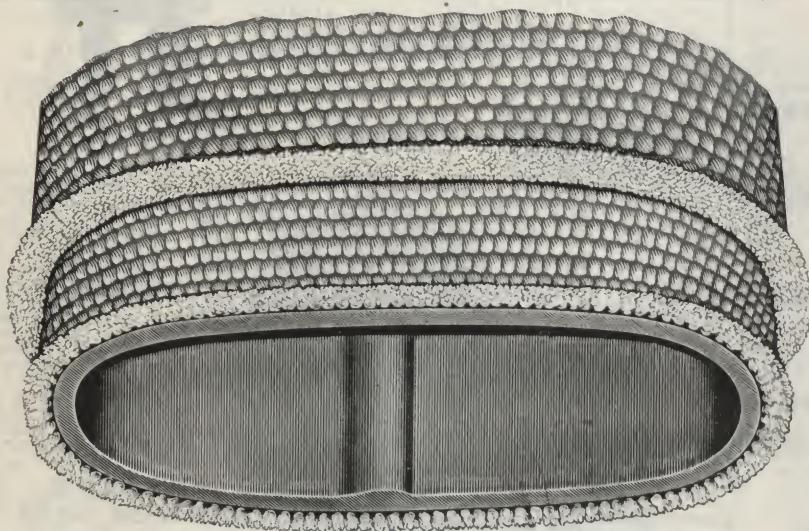
The most outstanding development in recent years is the method of curing hose in the flat or oval shape rather than the round, as shown in the illustration. Both the flat cured and round hose are the same size and carry the same amount of water. The flat cured type becomes round when filled with water under 5 pounds pressure or more and offers no more resistance to the flow of water than the ordinary hose. The advantage of the new cure is that the hose can be coiled, racked, or snaked without placing the tube under tension. Since rubber deteriorates under tension, this feature adds years of service to the hose without extra cost to the user.

## Tested and Approved Hose

We offer a line of reliable Fire Department Hose that has been tested and approved for many years. The price range covers hose for the largest fire departments under the most severe conditions down to the lower priced hose for the smaller towns where lighter pressure and infrequent use would not justify the extra cost.

## Allen's Guarantee

All Regulation Fire Department Hose sold by us is warranted free from defects in manufacture and material, to stand a pressure of 400 pounds for double jacket hose and 300 pounds for single jacket hose on delivery.



Actual Size of 2½ Inch Double Cotton Jacket Fire Hose



4 Ply Laminated Tube of Pure Gum Rubber

## 'MARQUETTE'

### 2½ Inch Double Jacket

Flat cure. Guaranteed to withstand 400 pounds test pressure on delivery. Test records have shown an average bursting pressure of 700 to 750 pounds on a three foot section. The average tests on the rubber lining show a tensile strength of 2000 pounds to the square inch; and an elongation of 2 to 13 inches. Recommended for use in all fire departments. The average weight is 53 pounds for 50 feet, uncoupled.

★ NET FOOT  
UNCOUPLD **\$1.05**

### 2½ Inch Single Jacket

Flat cure. Guaranteed to withstand 300 pounds test pressure on delivery. The average weight is 42 pounds for 50 feet, uncoupled.

★ NET FOOT  
UNCOUPLD **\$0.85**

This Hose Can Be Treated With Wax and Gum, 10c Foot Extra

### ★ NET SET, COUPLINGS FOR FIRE HOSE, ATTACHED

With Pin Lugs  
Double Jacket  
Single Jacket

1½ Inch 2½ Inch  
\$2.00 \$4.00  
\$1.75 \$2.75

With Rocker Lugs  
Double Jacket  
Single Jacket

1½ Inch 2½ Inch  
\$2.50 \$5.00  
\$2.50 \$5.00

Extra for applying customers  
couplings, including rings and wash-  
ers .....★ NET SET, \$0.50

All Fire Hose Prices Are Subject To Change Without Notice.

## 'ANACONDA'

### 2½ Inch Double Jacket

Flat cure. Guaranteed to withstand 400 pounds test pressure on delivery. A three foot section in our tests has bursting pressure of 600 to 650 pounds. The average test on the rubber lining show a tensile strength of 1800 pounds to the square inch; and an elongation of 2 to 13 inches. Recommended for fire department service. The average weight is 51 pounds for 50 feet, uncoupled.

★ NET FOOT  
UNCOUPLD **\$0.95**

### 2½ Inch Single Jacket

Flat cure. Guaranteed to withstand 300 pounds test pressure on delivery. The average weight is 40 pounds for 50 feet, uncoupled.

★ NET FOOT  
UNCOUPLD **\$0.75**

This Hose Can Be Treated With Wax and Gum, 10c Foot Extra

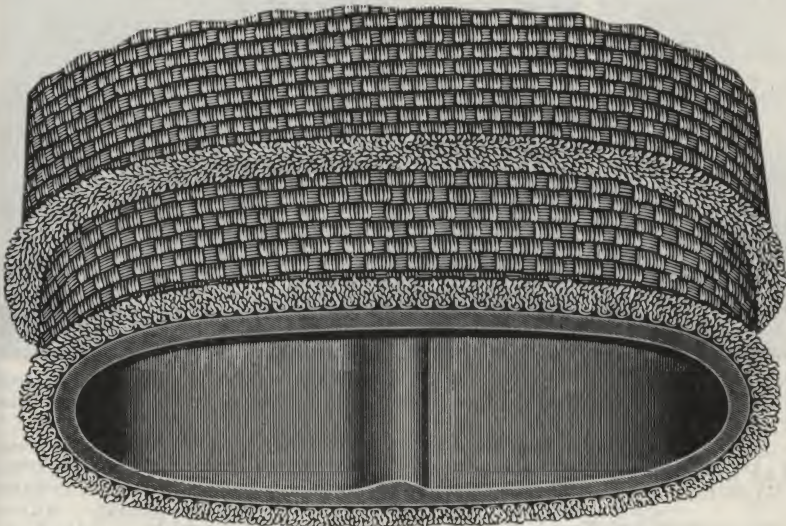


**1½ AND 2½ INCH  
COTTON RUBBER LINED**

# FIRE HOSE

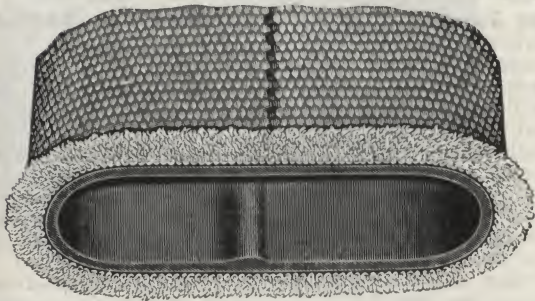
**'CABLE CORD—BASKET WEAVE' WAX & GUM TREATED**

The warp strands in the jacket are cable cord and will resist exterior abrasion longer than ordinary jackets. Both jackets are treated with a rubber gum compound that DOES NOT affect the rubber lining. The treatment adds materially to the life of the hose; retards mildew and rotting; and prevents ice from adhering to the jackets.



Actual Size 2½ Inch Double Jacket Hose

**'LEXINGTON'  
UNDERWRITERS'  
LABELED HOSE**



## Double Jacket Fire Hose

A standard brand that has been favorably known for years. Bearing full municipal warranty as well as the label of the Underwriters' Laboratories. Made to the specifications of the National Board of Fire Underwriters. Lexington Hose weighs 52.9 pounds per 50 foot section uncoupled.

★ NET FOOT UNCOUPLED

2½ Inch	2 Inch	1½ Inch
<b>\$0.67</b>	<b>\$0.57</b>	<b>\$0.49</b>

## Single Jacket Fire Hose

It is flexible, easily handled and weighs 42 pounds per 50 foot section uncoupled.

★ NET FOOT UNCOUPLED

2½ Inch	2 Inch	1½ Inch
<b>\$0.56</b>	<b>\$0.46</b>	<b>\$0.40</b>

*This Hose Can Be Wax and Gum Treated, 8c Foot Extra*

**All Fire Hose Prices Are Subject To Change Without Notice.**

## 2½ Inch Double Jacket

Flat cure. Guaranteed to withstand 400 pounds test pressure on delivery. The average tests of the rubber lining show a tensile strength of 2250 pounds to the square inch. The average weight is 60 pounds for 50 feet uncoupled.

★ NET FOOT UNCOUPLED **\$1.10**

## 2½ Inch Single Jacket

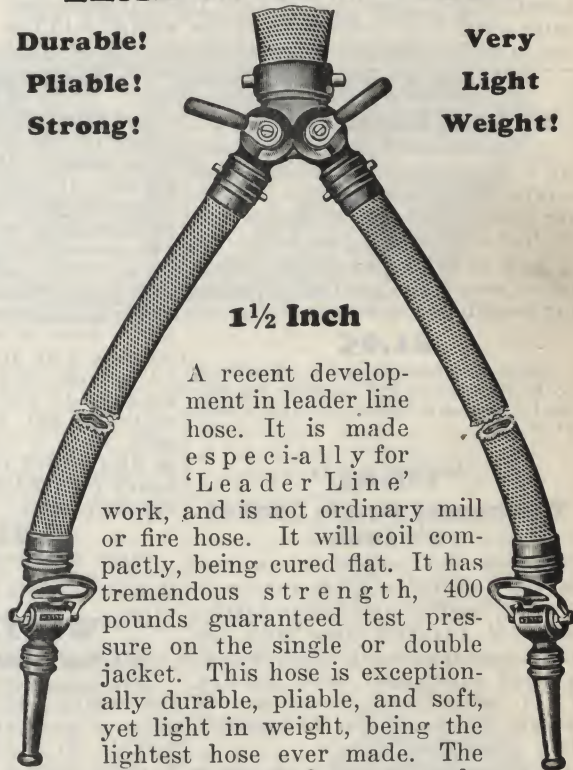
Flat cure. Guaranteed to withstand 300 pounds test pressure on delivery. The average weight is 45 pounds for 50 feet uncoupled.

★ NET FOOT UNCOUPLED **\$0.90**

## 'LEADER LINE' HOSE

**Durable!  
Pliable!  
Strong!**

**Very  
Light  
Weight!**



**1½ Inch**

A recent development in leader line hose. It is made especially for 'Leader Line'

work, and is not ordinary mill or fire hose. It will coil compactly, being cured flat. It has tremendous strength, 400 pounds guaranteed test pressure on the single or double jacket. This hose is exceptionally durable, pliable, and soft, yet light in weight, being the lightest hose ever made. The rubber lining is fine, extremely high grade, and light gravity.

**Double  
Jacket**

**65c**  
★ NET FOOT UNCOUPLED

**Single  
Jacket**

**45c**  
★ NET FOOT UNCOUPLED

**Extra Heavy  
Single Jacket**

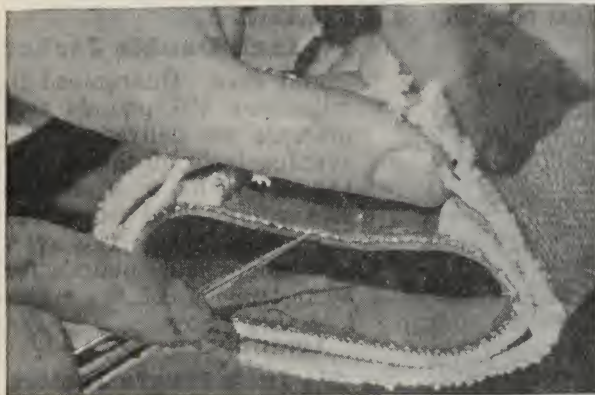
**55c**  
★ NET FOOT UNCOUPLED

*This Hose Can Be Wax and Gum Treated, 10c Foot Extra*



# 2½ INCH COTTON RUBBER LINED FIRE HOSE

## FOR MUNICIPAL FIRE DEPARTMENT SERVICE



**END PROTECTION.** An exclusive Goodrich Patented feature protecting hose from injury back of couplings. Note in above illustration the network of small hard-twisted cords built into the ends of the hose, and which extend 15 inches back from the coupling. Furnished in 2-1/2 inch size.

**FLAT CURE.** The tube in flat cured hose is not placed in tension by racking or coiling. (Rubber deteriorates more rapidly when under tension.) Laminated construction of four (or more) distinct calendered plies before curing are welded into one ply in curing process. Lap seam.



**HOSE HAS LONGER LIFE.** The illustration shows the place where End Protection saves the hose.

**HYDROSEAL TREATMENT.** Exclusive process of saturating every strand of cotton in both jackets, clear down to the rubber tube, with powerful anti-mildew and moisture resisting treatment. Adhesion between the jacket and tube is not diminished.

**CLOSE-WOVEN JACKETS.** Warpstrands completely cover and protect the filler cords. During weaving every cord is held at uniform tension. Filler strands of two jackets are wound in opposite directions.

### "JUPITER"

#### 2½ Inch Double Jacket

A reliable first-class, high-quality hose for dependable municipal service with full guarantee. Jupiter Hose weighs 50.9 pounds per 50 foot section uncoupled.

★ **NET FOOT** coupled with either heavy regulation pin lug or rocker lug couplings.

**\$1.05**

When old couplings are furnished to be applied to the hose by us, Deduct 7 cents a foot from the above price.

### "TIDAL"

#### Hydroseal Single Jacket 2½ Inch

Where the service is not too severe and yet a high quality is desired, we recommend the TIDAL SINGLE JACKET hose with the Hydroseal treatment. This hose is a good substantial hose, bearing full municipal guarantee. It weighs 43 pounds per 50 foot section uncoupled.

★ **NET FOOT** coupled with either heavy regulation pin lug or rocker lug couplings

**\$0.82**

When old couplings are furnished to be applied to the hose by us, Deduct 4-1/2 cents a foot from the above price.

### "WHITE KING"

#### 2½ Inch Double Jacket

Absolutely the highest quality hose made. Incorporating every refinement in manufacture and material, WHITE KING is guaranteed to stand an initial pressure of 400 pounds on delivery and three years' fire department service. This hose weighs 55.2 pounds per 50 foot section uncoupled. WHITE KING hose is so constructed that starting with an initial pressure of 10 pounds and building up the pressure to 400 pounds, the elongation is but 32 inches and 1½ twist turn.

★ **NET FOOT** coupled with either heavy regulation pin lug or rocker lug couplings.

**\$1.20**

When old couplings are furnished to be applied to the hose by us, Deduct 7 cents a foot from the above price.

### "WHITE KING"

#### 2½ Inch Single Jacket

The same high-quality built into the WHITE KING double jacket hose is maintained in the single jacket. It weighs 42 pounds per 50 foot section uncoupled.

★ **NET FOOT** coupled with either heavy regulation pin lug or rocker lug couplings.

**\$0.96**

When old couplings are furnished to be applied to the hose by us, Deduct 4-1/2 cents a foot from the above price.

### "BROWN KING"

#### Hydroseal Double Jacket 2½ Inch

Hydroseal treated jacket. Heavy Service. Regular standard fire department jacket construction of highest quality. This brand corresponds in every particular with the "White King" hose shown on this page but with the additional feature of the Hydroseal treatment. It weighs 60.2 pounds per 50 foot section uncoupled.

★ **NET FOOT** coupled with either heavy regulation pin lug or rocker lug couplings.

**\$1.25**

When old couplings are furnished to be applied to the hose by us, Deduct 7 cents a foot from the above price.

### "BROWN KING"

#### Hydroseal Single Jacket 2½ Inch

Hydroseal treated jacket. The same super-quality which is built into the "Brown King" double jacket hose is carried on to this single jacket hose. It weighs 44.5 pounds per 50 foot section uncoupled.

★ **NET FOOT** coupled with either heavy regulation pin lug or rocker lug couplings.

**\$1.01**

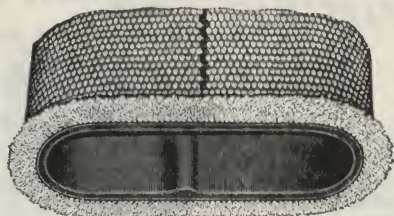
When old couplings are furnished to be applied to the hose by us, Deduct 4-1/2 cents a foot from the above price.

All Fire Hose Prices Are Subject To Change Without Notice.



# COTTON RUBBER LINED MILL HOSE

## For Mill-Yard, Factory Or Fire Department Service



### UNDERWRITERS' LABELED Single Jacket

This is used largely for the protection of mill-yards and large industrial plants, as well as by the Fire Departments. To meet two forms of insurance requirements, we carry in Chicago stock Underwriters' Labeled and Mutual Rubber Underwriters' Cotton Rubber Lined Hose.

### NET FOOT, Couplings Extra

	★ NET FOOT	★ NET SET Couplings
1/2	\$0.40	\$1.75
1	\$0.46	\$2.00
1 1/2	\$0.56	\$2.75
2	\$0.56	\$2.75

Old Couplings Attached  
★ NET PAIR, \$0.50

### MONARCH BRAND Single Jacket

The quality of this old reliable brand of fire hose has been increased. It has a heavier jacket and a better grade of lining and will now stand a test pressure of 100 pounds on delivery. It is still sold at attractive prices and will last for years provided it receives proper care. Carried in stock from 1 inch to 2 1/2 inches inclusive.

Size Hose Inches	LIST FOOT, Couplings Extra	★ NET SET Couplings
1	\$0.40	\$1.00
1 1/4	\$0.45	\$1.25
1 1/2	\$0.50	\$1.75
2	\$0.65	\$2.00
2 1/2	\$0.80	\$2.75

HOSE DISCOUNT 32-20% OFF  
Old Couplings Attached  
★ NET PAIR, \$0.50

### VILLAGE FIRE HOSE Single Jacket

Where an Underwriters' hose is not required by the Insurance authorities the Village hose is a wonderful value for the money. Guaranteed to stand a test pressure of 250 pounds on delivery. A high-grade hose at a medium price. Especially adapted for leader line fire department service for villages and smaller towns. Also for mill-yard and for factory service. Carried in stock from 1 1/4 to 2 1/2 inches inclusive.

Size Hose Inches	LIST FOOT, Couplings Extra	★ NET SET Couplings
1 1/2	\$0.50	\$1.75
2	\$0.65	\$2.00
2 1/2	\$0.80	\$2.75

HOSE DISCOUNT 25-20% OFF  
Old Couplings Attached  
★ NET PAIR, \$0.50

## FIRE ENGINE SUCTION HOSE



Fig. 4563

good looking, smooth cover Fire Engine Suction Hose that will modernize your fire fighting equipment. This hose has a tube of special high grade rubber of ample thickness. The live rubber used for the cover assures protection against abrasion and chafing.

Dependable fire engine suction hose is a necessary adjunct to expensive fire fighting equipment. The logic is there in buying low-priced fire engine suction hose, saving possibly a few dollars a season in it may incapacitate your entire fire apparatus. We urge you to purchase hose designed and built for this service; hose that WILL NOT COLLAPSE under the strongest suction; hose that WILL WITHSTAND THE CONSTANT PULSATIONS of the pump; and WILL NOT BREAK DOWN.

### THREE STAR WHITE COVER

O.D. Inches	★ NET FOOT
4	\$2.24
4-1/2	\$2.68
5-1/4	\$2.88
5-3/4	\$4.36
6-1/4	\$5.92
7-1/2	\$7.20

### "ALENCO" BLACK COVER

Size Inches	O.D. Inches	★ NET FOOT
3	3-13/16	\$2.06
3-1/2	4-5/16	\$2.28
4	4-13/16	\$2.68
4-1/2	5-9/16	\$4.16
5	6-1/16	\$5.22
6	7-5/16	\$6.92

Couplings are Extra, See Page 75B

All Fire Hose Prices Are Subject To Change Without Notice.

## SOFT SUCTION HOSE For Fire Department Service

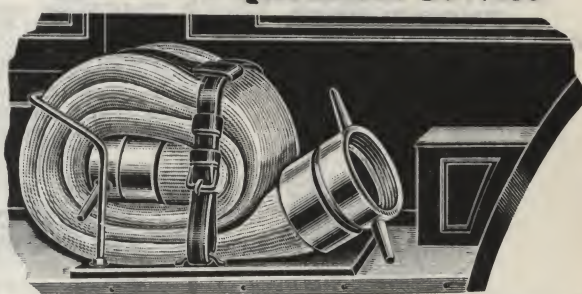


Fig. 4564

For this service we furnish a heavy double jacket cotton rubber lined fire hose. It has less bulk than hard suction hose and is equally strong, but is suitable for use only in cities where a high pressure water system is available because the discharge volume of the hydrant must be sufficient to counteract the suction of the pump.

3 1/2 Inch	★ NET FOOT, \$1.95
4 Inch	★ NET FOOT, \$2.25
4 1/2 Inch	★ NET FOOT, \$2.50
5 Inch	★ NET FOOT, \$2.70
5 1/2 Inch	★ NET FOOT, \$3.20

Couplings are Extra, See Next Page

## RUNNING BOARD PLATES—Cast Brass

A threaded cast brass, polished holder for accessories, fittings, play pipes, Siamese, etc., for mounting on the running board or the rear steps of the fire truck. Three holes for fastening. Nickel plating or chromium plating prices on request. SPECIFY THREAD AND SIZE of each fitting.

Inches	1-1/2	2	2-1/2	3	3-1/2
LIST	\$2.50	\$3.50	\$5.00	\$5.50	\$6.50
Inches	4	4-1/2	5	6	
LIST	\$7.00	\$8.00	\$9.00	\$10.00	

DISCOUNT 12% OFF



Fig. 4713



## LEXINGTON CHEMICAL ENGINE HOSE RED COVER



Fig. 2384. Actual Size, 3/4 Inch

### UNDERWRITERS' LABELED

Probably more chemical engine hose is rendered unfit for use from natural disintegration than by actual service. High grade with an extra good quality of rubber that assures long life whether used or not. Will stand the terrific strain of pressure and the deteriorating effect of chemicals. Recommended without reservation. High quality rubber lining. Four plies of heavy canvas. Good red cover. Furnished in lengths of 50 feet. See next column for couplings.

### ★ NET FOOT, Couplings Extra

Size Inch	50 Feet	100 Feet or More
3/4	\$0.37	\$0.34
1	\$0.49	\$0.44

See Next Column for Chemical Couplings.

## ALENCO CHEMICAL ENGINE HOSE NOT LABELED. RED COVER.



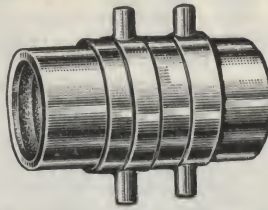
Fig. 4565. Actual Size 3/4 Inch Hose

A very good grade of Chemical Hose but does not have the Underwriters' Label. There are 4 plies of medium weight close woven extra strong duck. High grade, chemical resisting tube. Good grade extra heavy cover. Furnished in lengths of 50 or 100 feet.

### ★ NET FOOT, Couplings Extra

Size Inch	50 Feet	100 Feet or More
3/4	\$0.32	\$0.29
1	\$0.43	\$0.39

## CHEMICAL HOSE COUPLINGS



Made heavy of a red bronze mixture to withstand rough treatment. Complete with washer and expansion rings. SPECIFY THREAD: Furnished with standard chemical engine hose thread; or any special thread, send samples. Please advise the outside diameter of the hose, or send a sample.

Size Inches	Polished Brass	Nickel Plated	Chrom. Plated
3/4	\$4.00	\$4.40	\$4.70
1	\$4.40	\$4.80	\$5.10
3/4	\$4.40	\$4.80	\$5.10
1	\$4.80	\$5.20	\$5.50

DISCOUNT ..... 20% OFF

## CHEMICAL HOSE NOZZLES

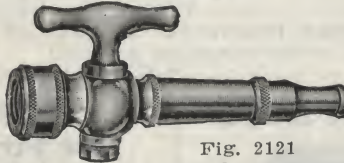


Fig. 2121

Made heavy to stand the severest usage with full opening through the ground key joint. SPECIFY THREADS: Furnished with standard chemical engine hose thread or any special thread; send sample.

Size Inch	Polished Brass	Nickel Plated	Chrom. Plated
3/4	\$9.50	\$10.00	\$11.00
1	\$9.50	\$10.00	\$11.00

DISCOUNT ..... 20% OFF

## ALLEN CHEMICAL SHUT-OFF NOZZLE



Fig. 123

The stream is quickly controlled by one movement of the heavy bronze handle. When closed it is absolutely water tight. Made heavy and carefully of cast bronze, and will stand abuse. Highly polished. SPECIFY THREAD AND SIZE. Standard discharge is 1/4 inch, other discharge sizes 3/16 to 1/2 inch, 3/4 or 1 inch.

★ NET EACH, \$16.65

## CAST BRASS SIAMESE CONNECTIONS

FOR FIRE DEPARTMENT USE ONLY

We list a few of the most popular patterns of Fire Department Siamese, but are prepared to furnish Connections to fit any condition.



Fig. 28

Used to combine two streams into one. SPECIFY THREADS. Made in sizes listed below.



Fig. 27

For dividing one stream into two streams. Where this Siamese is to be used as a wall hydrant the inlet is furnished with a solid back not swivel and tapped to take a taper iron pipe thread. SPECIFY THREADS, and whether swivel with lugs, or solid back is wanted.

Size Inches	LIST EACH Rough	LIST EACH Polished
1-1/2x1-1/2x1-1/2	\$10.90	\$14.90
1-1/2x1-1/2x2-1/2	\$13.30	\$17.30
2 x 2 x 2	\$12.90	\$16.90
2-1/2x2-1/2x2-1/2	\$19.20	\$23.20
2-1/2x2-1/2x3	\$20.60	\$24.60
2-1/2x2-1/2x4	\$24.00	\$28.00
2-1/2x2-1/2x5	\$29.30	\$33.30
2-1/2x2-1/2x6	\$34.50	\$38.50

DISCOUNT ..... 20% OFF

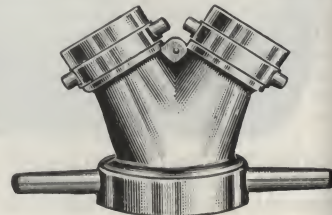


Fig. 33

Made with long handles, and either a solid or swivel connection. SPECIFY whether the 2-1/2x2-1/2 inch CONNECTIONS are to be male or female. SPECIFY THREADS and SIZE: 2-1/2x2-1/2x2-1/2, 2-1/2x2-1/2x3, 2-1/2x2-1/2x4, 2-1/2x2-1/2x5, 2-1/2x2-1/2x6 inches; and special combinations. Prices on request.

## FIRE TRUCK HOSE ADAPTERS AND CONNECTIONS—CAST BRASS

Every fire department truck should carry at least one each of these adapters and connections. If the fire department should reach the fire before getting to the hydrant, they can drop their hose near the fire and proceed to the hydrant and with one of these fittings make the same connection as they would if the hose were laid from the hydrant to the fire. Recessed for a washer.

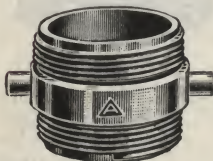


Fig. 3938

Double Male Hose Connection. One piece. For making a connection between two female couplings. 2-1/2 inch only. SPECIFY THREAD.

★ NET, \$4.80

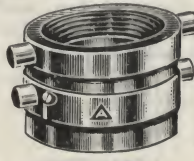


Fig. 2124

Double Female Hose Connection with swivel. For making a connection between two male couplings. 2-1/2 inch only. SPECIFY THREAD.

★ NET, \$6.88



Fig. 2126

Male and Female Adapter. One piece. For joining two lengths of hose with different threads. 2-1/2 inch only. SPECIFY THREAD FOR MALE AND FOR FEMALE.

★ NET, \$4.55



## FIRE DEPARTMENT SUCTION HOSE COUPLINGS



Fig. 312A.  
With Lugs on Both Ends



Fig. 312B. With Lugs on One End  
and Handles on the Other End

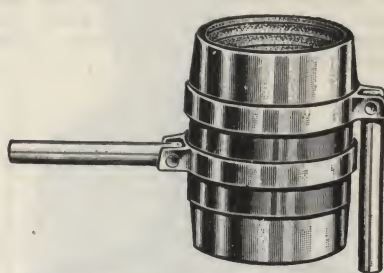


Fig. 312D. With Hinged Handles  
on Both Ends

We illustrate only a few of the combinations and styles that we can make. Suction Hose Couplings can be made: Fig. 312A Lugs on both ends; Fig. 312B Lugs on one end and long handles on the other end; Fig. 312C Long handles on both ends; Fig. 312D Hinged handles on both ends; Fig. 312E Hinged handles on one end and lugs on the other end; and other combinations. Made extra heavy of high grade bronze in the standard expansion ring type. For hard or soft suction hose, 2-1/2, 3, 4, 4-1/2, 5 or 6 inch. Other sizes can be made. Complete with expansion rings without washers. Female tailpiece is recessed for upper washer. SPECIFY FINISH, Polished Bronze; Nickel Plated; or Chromium Plated. State for what purpose the fittings are to be used and supply sketch or blue print if possible. SPECIFY THREAD INFORMATION.

DISCOUNT .....20% OFF

### LIST SET

Size Inch	312A Lugs on Both Ends	312B Long Handles On Female	312C Long Handles Both Ends	312D With Hinged Handles
2-1/2	\$7.00	\$10.50	\$14.00	\$10.50
3	\$12.10	\$15.80	\$19.50	\$15.80
3-1/2	\$18.20	\$21.90	\$25.60	\$21.90
4	\$19.30	\$23.10	\$26.90	\$23.10
4-1/2	\$27.00	\$31.00	\$35.00	\$31.00
5	\$31.40	\$35.40	\$39.40	\$35.40
5-1/2	\$53.20	\$57.20	\$61.20	\$57.20
6	\$55.60	\$59.60	\$63.60	\$59.60

## FIRE DEPARTMENT HYDRANT AND SUCTION HOSE CONNECTIONS



Fig. 286A. With Lugs on One End  
Long Handles on Other End  
Both Ends for Same Size Hose

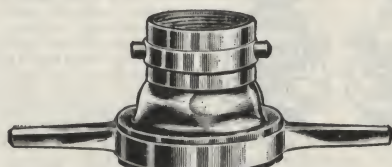


Fig. 286B. With Lugs on One End  
Long Handles on Other End  
Each End for Different Size Hose



Fig. 288. Male and Female One  
Solid Piece Hose Connection  
Rough or Polished Finish

The connections are representative of many styles and combinations we can furnish. The female swivel connection can be made with lugs on both ends; with lugs on one end and long handles on the other end, long handles on both ends. Fig. 288 Male and female connection is one piece and can be made with lugs only or with long handles. Made extra heavy of high grade bronze. Recessed for washer. SPECIFY FINISH, Polished Bronze; Nickel Plated; or Chromium Plated. State for what purpose the connections are to be used and supply sketch or blue print if possible. SPECIFY THREAD INFORMATION.

### STANDARD SIZES—Other Sizes Can Be Made

Figs. 286A Fig. 288 and 286B One with Solid Swivel Piece			Figs. 286A Fig. 288 and 286B One with Solid Swivel Piece			Figs. 286A Fig. 288 and 286B One with Solid Swivel Piece			Figs. 286A Fig. 288 and 286B One with Solid Swivel Piece		
LIST EACH Size, Inch	with Swivel	Solid Piece	LIST EACH Size, Inch	with Swivel	Solid Piece	LIST EACH Size, Inch	with Swivel	Solid Piece	LIST EACH Size, Inch	with Swivel	Solid Piece
2 to 2-1/2	\$12.10	\$6.00	3-1/2 to 2-1/2	\$15.70	\$9.10	4-1/2 to 2-1/2	\$20.60	\$12.30	5-1/2 to 2-1/2	\$27.00	\$16.50
2 to 3	\$13.30	\$7.00	3-1/2 to 3	\$18.20	\$10.30	4-1/2 to 3	\$23.90	\$13.30	5-1/2 to 3	\$29.90	\$16.70
2 to 4	\$18.20	\$9.90	3-1/2 to 3-1/2	\$20.60	\$12.10	4-1/2 to 3-1/2	\$27.50	\$15.40	5-1/2 to 3-1/2	\$35.20	\$19.60
2 to 4-1/2	\$20.60	\$12.30	3-1/2 to 4	\$23.00	\$13.00	4-1/2 to 4	\$33.10	\$16.40	5-1/2 to 4	\$38.70	\$20.90
			3-1/2 to 4-1/2	\$27.50	\$15.40	4-1/2 to 4-1/2	\$36.30	\$18.20	5-1/2 to 4-1/2	\$42.30	\$22.80
			4 to 2-1/2	\$18.20	\$9.90	5 to 2-1/2	\$24.20	\$14.50	6 to 2-1/2	\$28.00	\$18.20
2-1/2 to 2-1/2	\$13.30	\$7.00	4 to 3	\$20.60	\$10.90	5 to 3	\$26.60	\$15.50	6 to 3	\$33.90	\$19.20
3 to 3	\$14.50	\$8.10	4 to 3-1/2	\$23.00	\$13.00	5 to 3-1/2	\$31.50	\$17.60	6 to 3-1/2	\$39.90	\$21.80
4 to 4	\$20.60	\$10.90	4 to 4	\$25.40	\$14.00	5 to 4	\$36.30	\$18.40	6 to 4	\$42.40	\$24.20
4-1/2 to 4-1/2	\$23.90	\$13.30	4 to 4-1/2	\$33.10	\$16.40	5 to 4-1/2	\$38.70	\$20.60	6 to 4-1/2	\$44.80	\$26.60

DISCOUNT .....20% OFF

**THREAD INFORMATION.** 1. Send a sample of the thread to insure accurate fit with existing equipment.  
2. Send a sample of the hose to which the couplings are to be attached.

Coupling threads can be cut from description, but accurate measurements using a thread gauge and micrometer must be given. Special couplings made to order are not subject to return.



ALLEN SHORT FIRE DEPARTMENT PIPES

Designed for hard fire department service. Made of cast brass; polished, or wound and painted. The loop leather handles swivel on the top and bottom. Lugs on the base for quick and easy attachment to the hose. SPECIFY THREAD.

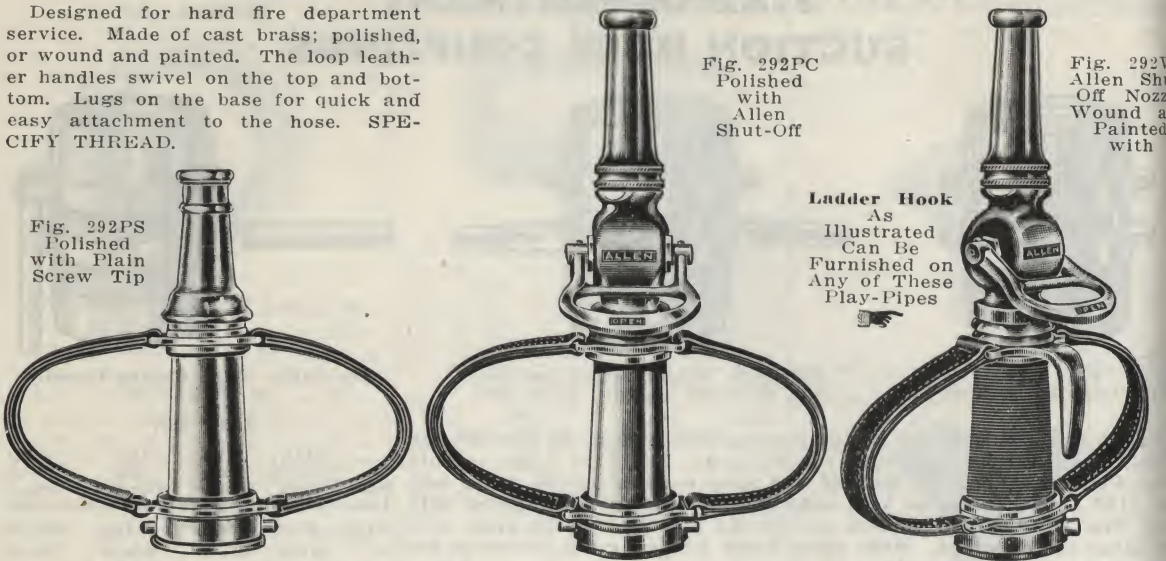


Fig.	Size	Finish
292PS	2-1/2x12 Inches	Polished Brass
292WS	2-1/2x12 Inches	Wound and Painted
292PC	2-1/2x17 Inches	Polished Brass
292WC	2-1/2x17 Inches	Wound and Painted

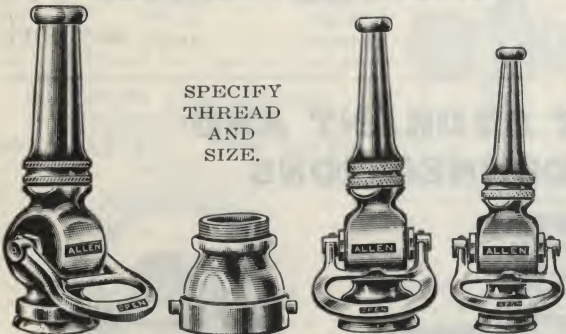
Fig. 292PC  
Polished  
with  
Allen  
Shut-Off

Fig. 292V  
Allen Shut-  
Off Nozz-  
Wound a  
Painted  
with

Ladder Hook  
As  
Illustrated  
Can Be  
Furnished on  
Any of These  
Play-Pipes

LIST Without Ladder Hook	LIST With Ladder Hook
Screw Tip \$25.70	Screw Tip \$30.70
Screw Tip \$27.30	Screw Tip \$32.70
Allen Shut-Off \$53.90	Allen Shut-Off \$58.90
Allen Shut-Off \$55.90	Allen Shut-Off \$60.90

ALLEN SHUT-OFF NOZZLE



SPECIFY  
THREAD  
AND  
SIZE.

Fig. 108A The stream is quickly controlled by one movement of the large, heavy bronze handle. Large, unobstructed waterway. When closed, it is absolutely water-tight. Made heavy and carefully of cast bronze, and will stand abuse. Highly polished. Rubber bumper on the tip can be furnished, see Fig. 4716, below.

Fig.	For	Std. Limits	LIST EACH
108A	Play Pipes	1/2 to 1 1/4	\$26.40
108-130	2 1/2 Inch Coupling Adapter and Fig. 108A	1/2 to 1 1/4	\$33.00
108B	1 1/2 Inch Leader Line Hose	1/2 to 3/4	\$24.65
123	3/4 or 1 Inch Cheml. Hose	1/4 to 1/2	\$17.95
130	Adapter only, Fits Fig. 108A and 2 1/2 Inch Coupling.		\$4.45

SHUT-OFF NOZZLE TIPS

Specify Thread and Discharge Size.



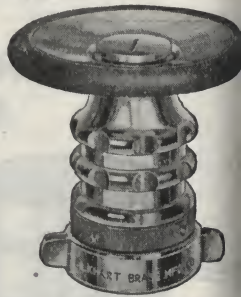
Fig.	Tip for	Length	Discharge	LIST EACH
4714A	Shut-off Play Pipe	3, 4-1/2, 6	1/2 to 1-1/4	\$2.50
4714B	1-1/2	5	1/4 to 3/4	\$2.60
4716	Any	Any	Any	Add \$1.10
4717	Chemical	4-1/2	3/16 to 1/2	\$2.00
4718	Umbrella adjustable spray and stream tip, with shut off.			
108A			1/2 to 1-1/4	\$16.50
108B			1/4 to 3/4	\$14.80

DISCOUNT, Entire Page.

THE NEW 'MYSTERY' NOZZLE

FOG, UP TO 160 CONICAL DEGREES—WATER CURTAIN—SOLID STREAM SHUT-OFF—ALL IN ONE NOZZLE

An all-purpose nozzle to be used on all fires to great advantage. The nozzle is dependable, no small holes to clog, no moving parts to get out of order. Can be used even if there is grit in the water, and for high or low pressure. It operates quickly and easily by revolving the discharge barrel. The stream selection is instantaneous. Rubber bumper protects the barrel. No leak shut-off. It fits and can be used with your present equipment, SPECIFY THREAD.



A FEW USES: Oil fires. Inflammable gases. Smoke remover. Residential fires. Insulating curtain. Wash down nozzle. Cellar nozzle. Attic fires. Lacquer or Pyrolyne fires. High pressure horticultural spraying. Forest fires. Coal fires. Dust storms.

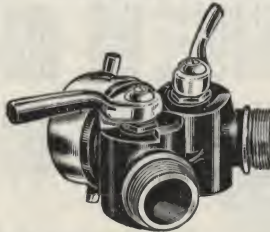
LIST EACH

Fig. No.	Attaches To	Polished Brass	Nickel Plated	Chromium Plated
D-5344	2-1/2 Inch Hose	\$62.50	\$65.00	\$66.25
5344	Playpipe Tip	\$50.00	\$52.50	\$53.75
L-5344	1-1/2 Inch Hose	\$43.75	\$46.25	\$47.50
S-5344	3/4 or 1 Inch Hose	\$37.50	\$40.00	\$41.25

LEADER LINE EQUIPMENT

Leader line equipment is used to divide one 2-1/2 inch stream into two 1-1/2 inch streams, providing a better control of the water and thereby reducing water damage.

SHUT-OFF NOZZLES. See Fig. 108B in first column. 1-1/2 INCH FIRE HOSE. See pages 72 to 75.



ALLEN'S SHUT-OFF SIAMESE. Fig. 4417.

The siamese is equipped with a one quarter turn control valve for each 1-1/2 inch line. The shut-offs are absolutely water-tight. The valves will not stick in any kind of weather. 2-1/2 inch swivel connection. Made of high grade bronze. Red body. SPECIFY THREADS.

Polished Brass Trim	LIST EACH	\$29.50
Nickel Plated Trim	LIST EACH	\$31.50
Chromium Plated Trim	LIST EACH	\$32.50

20% OFF



**RUBBER RESPIRATORS**

Fig. 499

For firemen or persons exposed to poisonous dust fumes or gases. Made of pure white rubber, soft and pliable, will bend to fit the face, easily cleaned. Fine sponge filter, automatic air valve.

★ **NET EACH, \$0.95**

**FIREMAN'S GAS MASK WITH NON-FOGGING GLASSES**

Fig. 2792

Made of a single piece of rubber, cannot tear apart. Large filter capacity and perfect vision. Easily carried in pocket.

★ **NET EACH, \$3.20**

**AMMONIA MASK**

Fig. 4145

Labeled and officially approved by the United States Government for ammonia protection. The well known and efficient ammonia absorbent, KUPRAMITE, is used in the canister for rendering the poisonous and irritant ammonia fume harmless. Reliable. Ready for any emergency. Design of head harness insures a comfortable fit. Durable rubber face piece, made of new black rubber and cured under rigid control. Face piece fits any face perfectly. A deflector prevents the fogging of the safety lenses which are set to give a wide angle of vision. Approved type of exhalation valve closes instantly on inhalation. Packed in fibre case which is provided with a special form to hold the face piece in normal wearing position. With one canister.

1 to 5 ... ★ **NET COMPLETE \$22.50**

6 to 11 ... ★ **NET COMPLETE \$20.00**

12 or more ... ★ **NET COMPLETE \$18.50**

Extra Canisters. ★ **NET EACH, \$2.50**

**DUPOR BULB VALVE RUBBER RESPIRATOR**

Fig. 4759

For use in smoke, paint spray, light fumes, vapors, and all kinds of dust. Compact and comfortable. The bulb exhalation valve is double and there is no resistance in breathing. Enlarged screw cap type filter chambers. Very large filter aperture of 16 square inches. 4-1/2 ounces.

★ **NET EACH, \$2.00**

Extra 1/4 Inch Pads ★ **Net Each 4c**

**INDUSTRIAL RESPIRATOR**

Fig. 4701

The filtering unit with an area of 104 square inches, is worn at the back of the operator in a canister. The canister portion is light weight metallic construction and serves only as a shield for the bag. A quickly removable yet positive coupling attaches the hose to the canister. The face piece is moulded rubber that fits under the chin which attains a sealed fit with a minimum of head band pressure. There is no interference with goggles. Recommended for any work where there is severe dust and where the use of an air line pressure type mask is impractical. In steel storage case.

★ **NET EACH, \$15.00**

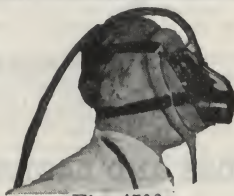
**SANDBLAST MASK**

Fig. 4702

This mask eliminates injuries to the lungs caused by fine dust, commonly known as 'Silicosis' Approved and recommended by insurance companies.

This mask takes the place of hood, respirator, and goggles, commonly worn by sandblasters; and is efficient in each of these functions. The rigid face piece has mounted upon it a pneumatic cushion for comfort and to seal the interior of the mask against outside air. A regulated supply of air from the compressed air line, or an individual blower under pressure enters the mask permitting free and easy breathing and is exhausted, 42 inches of hose. Plug valve regulates the flow of air. Quick acting coupling. Belt with clip to hold the valve and fittings. Heavy hood protects the wearer and face mask from the rebounding abrasive.

Complete With Hood ... ★ **NET EACH Canvas, (For Sand) ..... \$35.00**

Leather, (For Steel Shot) ... ★ **\$41.00**

**INDUSTRIAL GAS MASKS**

Fig. 4146

For protection against individual gases, or combinations of gases, smokes, vapors and dusts. (Carbon monoxide and illuminating gases excepted—a mask for this purpose can be furnished.) A wide selection of canisters is provided for use with this mask covering all the poisonous industrial gases. Durable rubber face piece made of new black rubber and cured. Face piece fits any face snugly and securely without binding and drawing. A deflector conducts the dry incoming air over the lenses and prevents fogging. Safety lenses are non-shattering. Adjustable elastic head bands. Positive and approved type exhalation valve closes instantly upon inhalation. Waterproof fibre case with form to hold face piece in normal wearing position. SPECIFY THE KIND OF CANISTER OR SPECIFY GAS OR GASES FOR WHICH PROTECTION IS WANTED. With one canister.

1 to 5 ... ★ **NET COMPLETE \$22.50**

6 to 11 ... ★ **NET COMPLETE \$20.00**

12 or more ... ★ **NET COMPLETE \$18.50**



Fig. 4147

**Canisters for Protection of—**

**GMA.** Organic vapors, alcohol, acetic acid, aniline, carbolic acid, benzol, gasoline, carbon bisulphide, carbon tetrachloride, ether, formaldehyde, lacquer, sulphur chloride, etc. ★ **NET EACH, \$2.75**

**GMA-1.** GMA and dust and smoke. ★ **NET EACH, \$2.75**

**GMB.** Acid gases, bromine, chlorine, hydrogen sulphide, sulphur dioxide, etc. ★ **NET EACH, \$2.55**

**GMB-1.** GMB and dust and smoke. ★ **NET EACH, \$2.55**

**GMC.** Combinations of organic vapors and acid gases. Chlorine. ★ **NET EACH, \$2.75**

**GMC-1.** GMC and smoke and dust. ★ **NET EACH, \$2.75**

**GME.** Organic vapors, acid gases and ammonia. ★ **NET EACH, \$2.65**

**GME-1.** GME and smoke and dust. ★ **NET EACH, \$2.65**

**GMH.** Cyanogen chloride and hydrocyanic acid. Fumigating. ★ **NET EACH, \$2.55**

**GMK.** Hydrocyanic acid gas only. Fumigating. ★ **NET EACH, \$2.55**



## UNDERWRITER PLAY PIPE

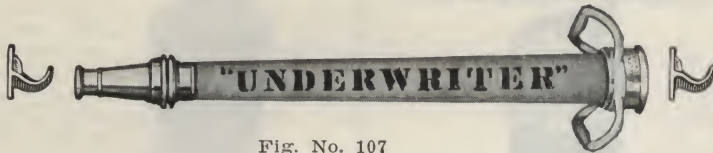


Fig. No. 107

We make swivel handle play pipes according to the specifications of the Associated Factory Mutual Fire Insurance Companies of Boston. These pipes are made in strict accordance with the specifications of the above companies in all respects. They have screw nozzle, swivel handles, and are wound and painted red. Size 2½ inches, length 30 inches.

**★ NET EACH, \$9.00**

Underwriters' Brackets, Fig. 127-1.....★ Net SET, \$0.85

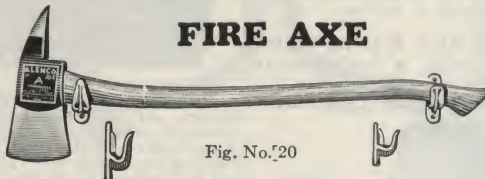


Fig. No. 20

Conforming strictly to Underwriters' Specifications. Head is forged steel with the blade and pick polished. Handle and head enameled red.

Fire Axe .....★ Net Each, \$4.45

Fire Axe Brackets, Fig. 127-3.....★ NET SET, \$0.72

## CROWBAR

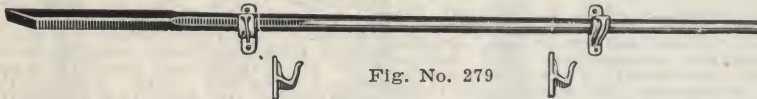


Fig. No. 279

Crow Bar, 56 inches .....★ NET EACH, \$2.30

Crow Bar Brackets, Fig. 127-2.....★ NET SET, \$0.62

## PICKAROONS

Pikes are hand forged from hammered crucible cast steel and are screwed in. The ferrules are seamless and are cold drawn from polished steel. Handles are made from select Ohio white ash.

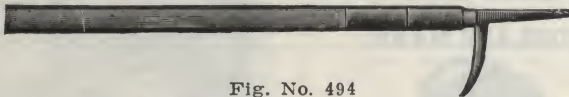


Fig. No. 494

★ NET DOZEN		★ NET DOZEN	
No. 0311—6 ft., 47 lbs.....	\$22.50	No. 0315—14 ft., 91 lbs.....	\$42.25
No. 0312—8 ft., 56 lbs.....	\$26.50	No. 0316—16 ft., 105 lbs.....	\$54.00
No. 0313—10 ft., 65 lbs.....	\$31.00	No. 0317—18 ft., 125 lbs.....	\$68.75
No. 0314—12 ft., 80 lbs.....	\$35.25	No. 0318—20 ft., 135 lbs.....	\$85.50

## PIPE HOLDER FOR FIRE HOSE



Fig. 119

Made to the Underwriters' requirements and specified by them. 52 inches long overall. See top of page for Underwriters Play Pipe.

The Pipe Holder is an essential part of all hose house equipment. It is instantly attached to the Underwriters' Play Pipe, and enables one operator to easily control a high pressure stream.

**★ NET EACH, (Less Pipe) \$5.60**

## HOSE AND LADDER STRAPS

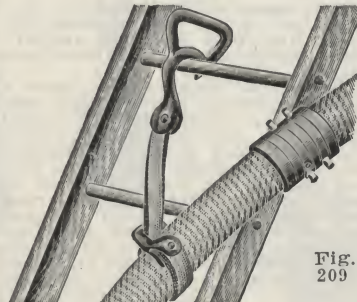


Fig. 209

Handles are made of malleable iron, galvanized. The strap is made of flexible woven cotton fabric, and will endure a great strain. Light and easy to handle.

**★ NET EACH, \$1.75**

## KING

### FIRE DEPT. LANTERNS



Fig. 497

The standard fire department lantern for years. Burns kerosene and gives about a 4 candle power light. Reinforced for holds enough oil for hours of use. Fitted with a 5/8 in. wick and patented hinged shield guard.

**★ NET DOZEN**

Red Enam. Tin, Cop. Fount....\$48.00  
N. P. Tin, Copper Fount.....\$54.00  
Polished Brass all over.....\$84.00  
Brass, Nickel Plated.....\$84.00

### UNDERWRITERS' MILL LANTERNS

Approved by the Underwriters. Burns kerosene and gives a 4 candle power light. Made only in bright tin finish. Burns 28 hours with one filling.

**★ NET DOZEN, \$31.50**



Fig. 498

### GALVANIZED HOSE SPANNERS Tabor Spanner

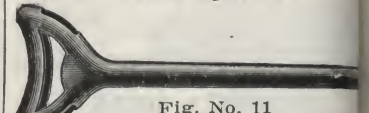


Fig. No. 11

Size	Length	★ NET DOZEN
1½ inch	8 inch.....	\$3.00
2½ inch	9¾ inch.....	\$3.00

Bracket, Fig. 127-4.....★ EACH, \$0.60

### Common Hose Spanners



Fig. No. 9

Malleable iron, galvanized.

Size	Length	★ NET DOZEN
1½ inch	9 inch.....	\$3.00
2 inch	10 inch.....	\$4.00
2½ inch	10¾ inch.....	\$5.00
3 inch	11 inch.....	\$7.00
4 inch	12 inch.....	\$8.00

### Combination Spanner and Hydrant Wrench

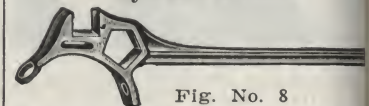


Fig. No. 8

Very handy. Spanner for 2½ inch couplings. Opening, 1 inch square. Choice of 3 sizes of pentagonal hole, 1½, 1¼ or 1½ inch; to determine size measure from base of opening to opposite angle. Specify size.

Pentagonal Hole	★ NET DOZEN
1½ inch	\$9.00
1¼ inch	\$9.00
1½ inch	\$9.00

### Adjustable Spanner Wrench



Fig. 253

Fits any size pentagon nut up to 1¼ inches by turning the steel handle right or left to the size desired.

**★ NET EACH, \$1.00**



# UNDERWRITERS' APPROVED HOSE AND HYDRANT HOUSE

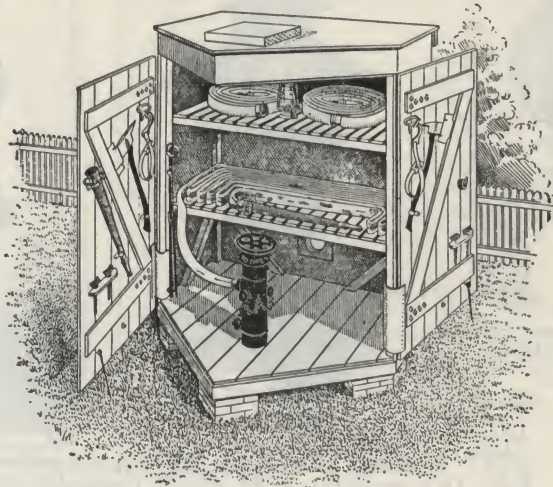


Fig. 474

## HOSE AND HYDRANT HOUSE (Without Equipment)

Shipped knocked-down complete with priming coat, prepared roofing and hardware for erection.

F. O. B. Chicago, Illinois:

**★NET COMPLETE, \$60.00**

## EQUIPMENT (Without Hose House)

One hundred feet 2½ inch Underwriters' Cotton Rubber Lined Hose, (always coupled to hydrant and with playpipe attached). 100 feet of extra hose, (placed on upper shelf). Two axes. Two crow bars. Four spanners. Two ladder straps. One nozzle holder. One mill lantern. Two Underwriters' Play Pipes and necessary brackets.

**★NET COMPLETE, \$175.00**

# ECLIPSE FIRE HYDRANTS

## CLOSES AGAINST THE WATER PRESSURE

These Fire Hydrants combine simplicity and durability and are easily repaired without digging up. Will not freeze as they are equipped with an anti-freezing, positive automatic drain, bronze mounted, with rubber valve washer. Note how few simple, interior operating parts constitute construction. Any worn out parts may be replaced by merely unbolting and lifting the top cap without disturbing supply pipe connection.

### Sample of hose thread must be submitted when ordering.

Frost cases furnished only when ordered. Prices include one operating wrench. Hydrants are regularly painted an attractive green above the ground line and below with a black rust preventing paint. 1½ foot list applies to any shorter length. If Hydrants are to be equipped with Jones Patent Couplings, add \$4.00 to list for each nozzle.

### No. 2A and 2 LIST PRICES EACH

No. 2A Fire Hydrant is made in 1½ and 1½ inch sizes; valve opening 1½ inch, stand pipe, 1½ inch. No. 2 is made in a 2-inch size, valve opening 2½ inch, stand pipe, 3 inch. No. 2A and No. 2 are designed for use where something smaller than the regular fire hydrant is required (private corporations, etc.). Inlet and outlet are usually fitted for wrought iron pipe.

To set in ground, feet.....	1½	2	3	4	5	6
No. 2A. 1½ in. inlet and outlet	\$20.00	\$20.50	\$21.00	\$21.50	\$22.00	\$23.00
No. 2A. 1½ in. inlet and outlet	27.70	28.00	28.60	29.20	29.80	31.00
No. 2. 2 in. inlet and outlet	37.50	38.00	39.00	40.00	44.00	46.00

Add to No. 2 list, for 2½ or 3-inch inlet, \$2.00; 2-2-inch outlets, \$4.00; 1-2½-inch outlet, \$1.75; 2-2½-inch outlet, \$7.50. For hub inlet, \$2.50.

**DISCOUNT.....25% OFF**

### No. 3 SIZES AND LIST PRICES EACH

No. 3 Fire Hydrant is the most generally used type for both large and small municipalities. Diameter valve opening, 4 inch, stand pipe, 5 inch. Fitted with inlets for connection to any style pipe. A small extra charge is made for a faced and drilled flanged inlet, also for a Companion Flange.

Diameter of Pipe Connections	Pave-ment to Center of Inlet	One 2½-inch Nozzle	Two 2½-inch Nozzles	Three 2½-inch Nozzles	One Steamer Nozzle	One 2½-inch and One Steamer Nozzle	Two 2½-inch and One Steamer Nozzle	Frost Case for 5-foot Hydrant	For Each Foot Plus or Minus	
									Stand Pipe	Frost Case
3 or 4 in.	5 ft.	\$66.00	\$70.00	\$74.00	\$72.00	\$76.00	\$80.00	\$20.00	\$3.00	\$2.00
5 or 6 in.	5 ft.	68.00	72.00	76.00	74.00	78.00	82.00	20.00	3.00	2.00

**DISCOUNT.....25% OFF**



Fig. 3681



Sectional View



## VIBRATING BELLS



Fig. 4568

Fig. 4569

## Fig. 4568. Skeleton Type

Gong Size Inches	For 6 Volt Battery For D.C. Only	For 18 Volt A.C. Transformer (50 Watts or More)
4	\$5.35	\$5.35
6	\$6.25	\$6.25
8	\$9.00	\$9.00
10	\$12.00	\$12.00

## Fig. 4569. Weatherproof

For A.C. Clear tone. Quick break contact. For heavy duty. D.C. can be furnished, price on request.

Gong Size Inches	6 to 32 Volt Transformer	A.C. 110-125 Volt	A.C. 220-250 Volt	Conduit Box Add to List
4	\$9.60	\$11.60	\$13.60	\$2.00
6	\$13.60	\$15.60	\$17.60	\$2.00
8	\$17.60	\$19.60	\$21.60	\$2.00
10	\$25.60	\$27.60	\$29.60	\$2.00

DISCOUNT ..... 25% OFF

## TRIP SIGNAL GONG



Fig. 2793

Polished nickel gong shell. Bronzed hammer and levers. Black japanned base.

Diameter Inch	List Each
5	\$1.00
6	\$1.50
8	\$3.00
10	\$5.00
12	\$8.00

DISCOUNT ..... 20% OFF

## ELECTRIC SIREN



Fig. 4211

Used as a fire, emergency, industrial, school or traffic signal; or for a starting or quitting signal. Can be connected to time recording systems to sound automatically at intervals. May be wired in multiple and operated from any number of locations. Copper weather guard and tube. Brass projector. Aluminum (5½ inch) rotor and housing. Bronze bracket. 12¼ inches long. Large end of projector is 8½ inches. Weather guard is 9¼ inch diameter. Motor for 110 volt, A.C. or D.C. Fitted for wiring.

★ NET EACH, \$37.50

## VERTICAL ELECTRIC SIRENS

Guaranteed for Five Years.

Listed as Standard by the Underwriters



Fig. 4213

## 2 Horse Power Vertical Siren.

Very powerful. High speed. Large size. Powerful special Universal motor, trouble proof and for 110 or 220 volts either Direct or Alternating Current, any cycle 1 phase. Weatherproof. Three years lubrication sealed in. Alemite greasing system. Composite aluminum rotor, 13½ inches in diameter. 2½ by 3 inch sound ports. Spreads the sound waves in all directions. Reaches full speed in 4 seconds. Develops up to 2.9 horsepower. Air intake is 600 cubic feet each minute. No line transformer is necessary. Guaranteed for five years. Complete with safety hand switch.

★ NET EACH, \$169.00

Extra Stations....★Net Each, \$3.00

## 3 Horse Power Vertical Siren.

With 2 step sound deflector and spreader. Rotor is one piece aluminum casting, 13½ inches in diameter. 8 extra large sound ports that give it very great penetrating sound power. 3600 R. P. M. Air intake is 2100 cubic feet each minute. Simple to install and control. Guaranteed for five years. Complete, with hand safety starting switch, and with protective thermal cut-outs to protect motor against burn-outs. For 60 cycle, 220 volts.

3 Phase...★ NET EACH, \$229.00

Extra Stations....★Net Each, \$3.00

## 5 Horse Power Vertical Siren.

Weatherproof. Aluminum rotor 15 inches in diameter. With eight extra large ports and capacity for thousands of cubic feet of air each minute. Speed is 3600 R.P.M. Two-step sound deflector and spreader give it guaranteed radius range of 2 to 5 miles. Simple to install and control. Guaranteed for 5 years. With thermal cutouts to automatically protect the motor against burnouts. With safety operating switch. All complete ready for operation. Motor for 220 volts, A.C., 60 cycle.

3 phase...★ NET EACH, \$265.75

Extra Stations....★Net Each, \$3.00

Single Phase Motors for the above sirens. Add \$50.00 to the prices for the 3 Horse Power and the 5 Horse Power when ordered single phase.

## DETEX ALERT WATCHMAN'S CLOCK

Underwriters' approved. For any number of stations up to 32.

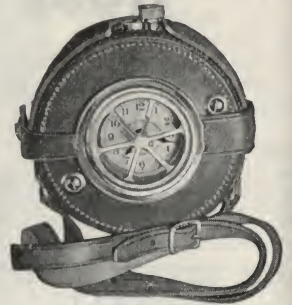


Fig. 3862

For any number of stations up to 32. Approved by Underwriters' Laboratories and Factory Mutuals. A record on the dial can only be obtained by bringing together the two elements of the embossing die—the matrix in the clock and the raised character on the key station. The watchman must carry the clock to the stations to make his record. Registering key and embossing character are made of case-hardened steel. Leather carrying pouch. With one year's supply of dials. Stations are extra.

★ NET EACH, \$50.00

Alert D Station Box. Open type Non-Locking.

★ NET EACH, \$1.75

## DETEX PATROL WATCHMAN'S CLOCK

Underwriters' approved. For any number of stations, there is no limit.



Fig. 3863

Passed by Underwriters' Laboratories and Factory Mutuals. Gives you ASSURED PROTECTION. The entire recording mechanism is in the station, the clock is simply a record dial carrier. Any number of stations can be used—there is no limit. Stations may be added or changed without changing clocks. Clocks are interchangeable. Any number of watchmen may record their rounds at the same stations. Each station recorder holds a male and female dial that records the station's identification character on a paper dial in the clock. Leather carrying pouch. One year's supply of dials. Stations are extra.

★ NET EACH, \$60.00

Patrol Station Box. Surface type. Without lock.

★ NET EACH, \$4.00



## FIRE DEPARTMENT HOSE LIGHT



Fig. 4418



Designed for use on fire apparatus. Can be turned by the handle to point to any direction. Brass body, 6 inches in diameter by 4 1/4 inches deep. Plain lens. Silver plated reflector. 32 candle power, single contact, 6-8 volt, bulb. 8 feet of single wire in armored cable. Inbuilt push-pull switch. Universal mounting bracket, will mount on round rod up to 1 1/2 inch diameter. Chromium plated finish.

★ NET EACH, \$3.60

## STEEL FIRE BROOM

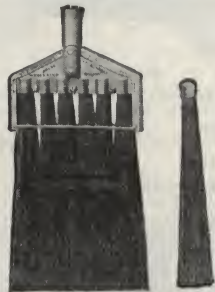


Fig. 4214

Extra long steel fillers. Extinguishes but does not spread the fire. Used for sweeping or spanking. Not affected by severe heat. Will give prolonged service. Wood handles.

1 to 11.....★ NET EACH, \$3.00  
12 or more.....★ NET EACH, \$2.70

## CALCIUM CHLORIDE

Fig. 4152

Extensively used in the manually operated bucket type of extinguishers, water pails, and water barrels for lowering the freezing point of water. Packed in air-tight container. The following table will be of value.

Solution consisting of:

Calcium Chloride	Water	Reduces Freezing Point to
1 lb.	1 gal.	23° F.
1 1/2 lbs.	1 gal.	14° F.
2 lbs.	1 gal.	5° F.
2 1/2 lbs.	1 gal.	2° F.
3 lbs.	1 gal.	-10° F.

The solution should be strained through a cloth to prevent clogging the pump.

100 Pound Lots. ★ NET POUND, \$0.05

20 Pound Lots. ★ NET POUND, \$0.10

## BICARBONATE OF SODA

Fig. 4100

First quality and grade. Always fresh and clean.

Barrels, approximate weight 400 pounds.

★ NET BARREL, \$14.80

Kegs, approximate weight 112 pounds.

★ NET KEG, \$4.48

50 to 100 Pounds.

★ NET POUND, \$0.05

1 to 49 Pounds.

★ NET POUND, \$0.08

## BREAKABLE PADLOCK

For Hose and Hydrant Houses

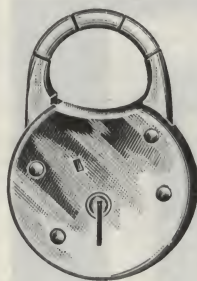


Fig. 4131

Required by the Underwriters for Hose and Hydrant Houses. Brittle cast iron shackle is easily broken. 2 inch size. Self locking. All brass, polished case. 2 nickel plated flat steel keys.

★ NET EACH, \$0.60

## SULPHURIC ACID

Full Strength Best grade. 66 Degree.



Fig. 4101

Approximately 200 pounds (10 gallons) in Carboy container. The carboy is \$5.00 ★ NET EXTRA,

★ NET POUND, \$0.04

In Jugs ★ NET EACH

5 gallon ..... \$6.50

1 gallon ..... \$1.50

1/2 gallon ..... \$0.80

1 quart ..... \$0.50

## PNEUMATIC ACID SYPHON

Acid Always Under Control.  
No Splashing. No Danger



Fig. No. 1333

Eliminates wasting acid and danger of burns. Compressed air forces acid through lead discharge tube into receptacle. Air valve controls flow of acid. Head made of special composition, not affected by acid fumes. Safety valve automatically releases air at a given pressure, eliminating danger of bursting carboy. Complete with pump.

★ NET EACH, \$9.00

## FIRE PAILS—Galvanized Inside—Outside Painted Red



Fig. 400

No.	Bottom	Capacity	★ NET DOZEN
400-12	Flat	12 Qt.	\$6.15
400-14	Flat	14 Qt.	\$6.75

No.	Bottom	Capacity	★ NET DOZEN
496-12	Round	12 Qt.	\$6.75
496-14	Round	14 Qt.	\$7.43



Fig. 496

## ANGLE BRACKETS

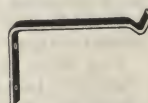


Fig. 3489

For Fire Pails. Red.

★ NET EACH. . . \$0.30

★ NET DOZEN. . . \$3.00



## NATIONAL CARBON DIOXIDE (CO<sub>2</sub>) FIRE EXTINGUISHERS

APPROVED BY THE UNDERWRITERS' LABORATORIES



Fig. 4991

For Classification B and C of Fire Appliances by Underwriters' Laboratories. CLASS B FIRES may be defined as incipient fires in small quantities of flammable liquids, greases, etc. CLASS C FIRES, incipient fires in electrical equipment.

This equipment extinguishes fire by forming an inert gas blanket rendering combustion impossible. The gas filters into crevices which liquid could not reach. The medium used is Carbon Dioxide, a non-toxic harmless gas. It remains within the cylinder as a liquid discharging under its own pressure without pumping. On discharging the extinguisher, so-called Carbon Dioxide snow is present in large volume, as well as Carbon Dioxide gas. The snow is immediately converted through sublimation into Carbon Dioxide gas.

After use the cylinders may be recharged at any of the commercial Carbon Dioxide companies. No recharging is required until used. These extinguishers WILL NOT FREEZE. Made in portable units and system installations, (information on request), for such industrial hazards as oil refineries; bulk oil terminals; paints; varnishes; alcohol; chemicals; electrical equipment, as the gas is a non-conductor of electricity; garages; etc.

**MODEL 7.** Capacity 7-1/2 pounds gas. Height 30 inches. Diameter 4-1/2 inches. Weight 34 pounds. 3 feet of hose. Rated B-2, C-1. SPECIFY disc or seat valve.

★ NET EACH, \$43.40

**MODEL 15.** Capacity 15 pounds gas. Height 28 inches. Diameter 7 inches. Weight 42 pounds. 3 feet of hose. Rated B-1, C-1. SPECIFY disc or seat valve.

★ NET EACH, \$52.50

**MODEL 50.** Mounted on wheels. Capacity 50 pounds gas. 15 feet of hose. Control valve on horn. Width 19 inches. Weight 220 pounds. Rated B-1, C-1. SPECIFY disc or seat valve.

★ NET EACH, \$148.00

**DISC VALVE,** the disc is pierced and the entire contents of the cylinder are discharged, a temporary shut-off is provided.

**SEAT VALVE,** may be opened or closed at will. A half turn opens the valve completely.

## FIRE EXTINGUISHER CABINET

Where possible a 2-1/2 gallon extinguisher should be installed in a cabinet with the fire lines, but where this is not practical, we recommend the use of a Fire Extinguisher Cabinet.

Protecting Fire Extinguishers by a cabinet, discourages tampering, with the possibility of accidental discharge. As the cabinets are practically air tight, they reduce the expense of keeping the extinguisher polished and very materially add to the appearance of the building. The value of any fire apparatus is in direct proportion to its availability and if prominently displayed in a neat cabinet, the extinguishers are readily available in case of emergency.

These cabinets are furnished in Alenco hollow metal construction either in the recessed or exposed type, or with hollow metal full glass panel or duo-panel doors. They can also be furnished in the Nella sheet steel construction with full glass panel. The door frame is 2 inches wide; trim 2 inches wide; inside dimensions of cabinet, 12 inches wide by 27 inches high and 8 inches deep. Outside trim is 17 inches wide by 32 inches high. Opening required in wall is 27-3/4 inches high by 12-3/4 inches wide and 7-1/2 inches



Fig. 285

deep. Cabinets for 2 Fire Extinguishers can be furnished, add 8 inches to the above widths, price on request.

★ NET EACH CABINET ONLY

### ALENCO—Hollow Metal

D.S.A. Glass Panel...★NET, \$20.00  
Plate Glass Panel...★NET, \$20.80  
Duo-Panel Door ....★NET, \$23.20  
Outside Wall Type...Add \$2.50 NET

### NELLA—Sheet Metal

D.S.A. Glass Panel...★NET, \$19.20  
Plate Glass Panel...★NET, \$20.00  
Outside Wall Type....Same Prices

## SODA AND ACID FIRE EXTINGUISHER RECHARGE

Fig. 4705

Made to Underwriters' and Government specifications. The Bi-carbonate of Soda and the Sulphuric Acid are carefully packed in a special telescope tube to insure safe shipment.



Charge	LIST EACH
2-1/2 Gallon .....	\$0.40
20 Gallon .....	\$3.50
40 Gallon .....	\$5.00
<b>DISCOUNT</b> .....	<b>33-1/3% OFF</b>

## FOAM FIRE EXTINGUISHER RECHARGE

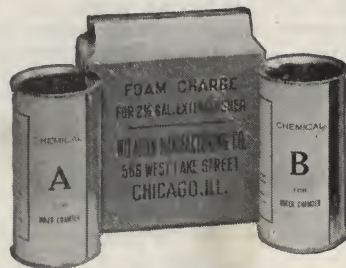


Fig. 4706

High quality, chemicals made to Underwriters' and Government specifications.

Charge	LIST EACH
2-1/2 Gallon .....	\$1.15
10 Gallon .....	\$6.00
20 Gallon .....	\$9.00
40 Gallon .....	\$11.75
<b>DISCOUNT</b> .....	<b>33-1/3% OFF</b>

## REDDY FIRE EXTINGUISHING LIQUID

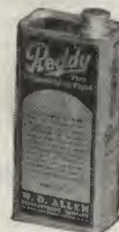


Fig. 3738

For recharging carbon-tetra-chloride base fire extinguishers. Made to Government specifications. The freezing point is 50 degrees below zero Fahrenheit.

Size Can	Weight	LIST EACH
Quart	3-3/4 Pounds	\$1.15
Gallon	13-3/4 Pounds	\$4.00
<b>DISCOUNT</b> .....	<b>33-1/3% OFF</b>	



# FIRST AID

## 2½ Gallon Soda and Acid Tip-Over Type Chemical FIRE EXTINGUISHER

FOR GENERAL FIRE PROTECTION. For Classification A of Fire Appliances by Underwriters' Laboratories. CLASS A FIRES may be defined as incipient fires in ordinary combustible materials where the QUENCHING and cooling effects of quantities of water, or solutions containing large percentages of water, is of first importance.

### APPROVED AND LISTED BY

Underwriters' Laboratories  
Associated Factory Mutuals Insurance Company  
Department of Commerce For All Marine Service

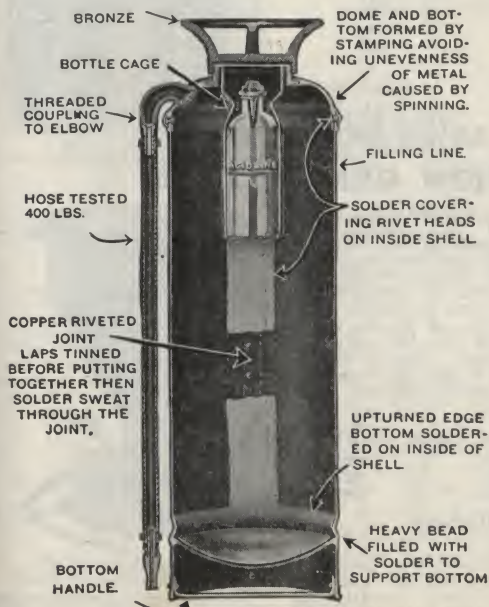
### INSTANTANEOUS ACTION

Soda and Acid Tip-Over Type Extinguishers and Chemical Engines are instantaneous in action, easy to operate and produce a gas charged stream having many times the extinguishing power of water. Extinguishes any ordinary fire with little or no damage. No pumping is required and no experience is necessary to operate it. To start, turn bottom up; that's all there is to it. CAUTION! These extinguishers must be protected from freezing.

### CAREFULLY CONSTRUCTED

Will stand a bursting pressure which considerably exceeds the Underwriters' requirements. Each machine bears the approving label of the Underwriters' Laboratories. The extinguisher tank is made of the very best grade of cold rolled copper, manufactured especially for this purpose. The lapped joints are first tinned and copper riveted, then the solder sweat through to the outer edge of the laps with the rivet heads well covered with solder on the inside. The dome and bottom are formed by stamping, which gives uniform strength and eliminates the unevenness of a spun shell. After being formed, the inside of the shell and all parts are heavily coated to prevent corrosion.

#### CROSS SECTION SHOWING CONSTRUCTION



#### SPECIFICATIONS

Weight, empty, 17 pounds.  
Weight, charged, 36 pounds.  
Duration of stream, 1¼ minutes.  
Capacity, 2½ gallons.  
Chemical charge:  
Bi-Carbonate of Soda, 1½ pounds.  
Commercial Sulphuric Acid, 4 fluid ounces.  
Distance stream is thrown, 35 to 45 feet.  
Maximum pressure in operation, 120 pounds.  
Tested to 350 pounds.  
Bursting pressure, 600 lbs.  
Safety Factor, 480 pounds.  
Standard finish is polished copper.

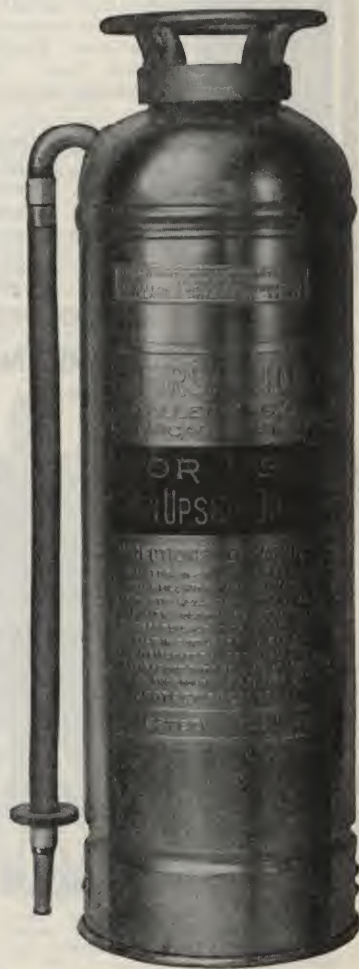


Fig. 3080

#### COMPLETE WITH ONE CHARGE AND HANGER

Polished Copper .....LIST EACH, \$15.00  
Copper, Nickel Plated .....LIST EACH, \$17.00  
Copper, Chromium Plated .....LIST EACH, \$18.00  
Non-Slop Type. Polished Copper.....LIST EACH, \$18.00  
Special Fire Department Non-Slop,  
Polished Copper .....LIST EACH, \$40.00  
Copper, Nickel Plated .....LIST EACH, \$42.00  
Copper, Chromium Plated .....LIST EACH, \$43.00  
Bracket Only .....LIST EACH, \$5.00

Extra Charge and 8 Ounce Bottle.....LIST EACH, \$0.40  
Soda and Acid in Large Quantities .....See Page 77

**DISCOUNT .....33⅓% OFF**

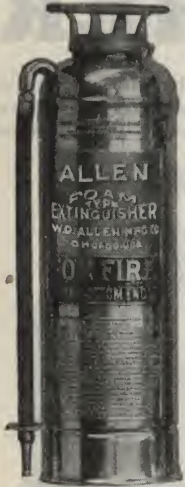


# FOAM FIRE EXTINGUISHERS

For Classification A & B of Fire Appliances by Underwriters' Laboratories

**CLASS A FIRES** may be defined as incipient fires in ordinary combustible materials where the **QUENCHING** and cooling effects of quantities of water, or solutions containing large percentages of water, is of first importance. **CLASS B FIRES** may be defined as incipient fires in small quantities of flammable liquids, greases, etc., where a **BLANKETING** effect is essential.

Foam extinguishers and engines are effective on all classes of fires, including oil, gasoline, naphtha, enamel, tar, wax, grease, shellac, lacquers, inflammable solvents and chemicals. Wherever quantities of an oily or highly inflammable character are manufactured, used or stored, the **FOAM Fire Extinguishers** are the best to install. The chemicals, when mixed by tipping the Extinguisher over will produce a fire killing foam approximately eight times the capacity of the Extinguisher. This tough heavy blanket of foam clings to walls or floats on the surface of burning oil. The foam is non-damaging.



## "ALLEN FOAM" EXTINGUISHER LABELED BY UNDERWRITERS' LABORATORIES

Fig. 3450

Ejects 20 gallons of tough fire-proof foam. Built of heavy cold-rolled copper, polished and lacquered. Labeled by the Underwriters' Laboratories. Actual capacity of tank, 3 gallons. Rated capacity (volume of liquid), 2 1/2 gallons. Height, 24 inches. Weight, empty, 18 pounds. Weight, filled, 42 pounds. Amount of foam produced, 20 gallons. Length of stream, 25 to 35 feet. Must be recharged yearly and protected from frost. Furnished complete with one charge and hanging hook. Additional charges supplied promptly.

### 2 1/2 GALLON CAPACITY

Polished Copper ..... LIST EACH, \$18.00  
Copper, Nickel Plated ..... LIST EACH, \$20.00  
Copper, Chromium Plated ..... LIST EACH, \$21.00

WITH SAFETY VALVE, APPROVED FOR MARINE SERVICE

Polished Copper ..... LIST EACH, \$20.00  
Copper, Nickel Plated ..... LIST EACH, \$22.00  
Copper, Chromium Plated ..... LIST EACH, \$23.00  
Extra Charges ..... LIST EACH, \$1.15

**DISCOUNT** ..... **33 1/3% OFF**

## PORTABLE 'FOAM' FIRE EXTINGUISHERS

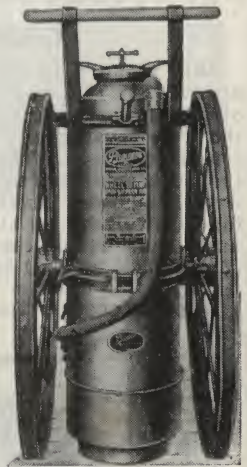
On Wheels. Underwriter's Labeled

Fig. 3601

Ideal for protection wherever quantities of materials of an oily or highly flammable character are manufactured, used or stored. Units consist of an outer tank and air inner removable container. The former is sheet-steel, with the seam riveted and welded, and a drawn steel bottom and dome, brazed to the tank cylinder. Entire tank coated by hot, dipped galvanizing. Tested to 400 pounds. Attractively finished in red enamel. The inner removable container is cold-rolled copper, coated inside and out with a corrosion-resisting alloy of lead and tin. A manually-operated stopple closes the container to prevent splashing. With shut-off nozzle. Protect from freezing.

	10-GALLON	20-GALLON	40-GALLON INDOOR	40-GALLON OUTDOOR
Wheels, Steel Rustproofed, Ins	16	24	50	50
Space occupied, Inches	28x22x43	34x21x50	50x30x63	50x46x85
Tread, Inches	20	20	26	41
Width overall, Inches	22	22	30	46
Height, Inches	43	50	63	85
Weight, empty, Pounds	138	195	460	540
Weight, charged, Pounds	235	370	810	890
Chemical hose, Feet	8	25	50	50
LIST EACH	\$200.00	\$340.00	\$400.00	\$450.00
Recharges, LIST	\$6.00	\$9.00	\$11.75	\$11.75

**DISCOUNT** ..... **33 1/3% OFF**



## CONTINUOUS FOAM PRODUCTION GENERATORS

Information on Request for Two Solution—Dry Powder systems ranging from 1000 to 3000 gallons per minute.



Fig. 4698  
Ready to Carry



Fig. 4699  
2-In-1  
Chemical

100% Portable. These generators have been specifically designed for utmost efficiency where strictly portable equipment and continuous foam production are required and where generator can be placed within 100 to 150 feet of fire. Available in three sizes and with single foam line using one chemical, these generators will operate on water inlet pressures ranging from 30 to 125 pounds and will produce continuously from 160 up to 1100 gallons of foam each minute depending on the water pressure available and size of unit.

Type	Length	Width and Height	Weight.	★ NET EACH
S-11	21	18 3/4 x 24	Inches 51	\$250.00
S-7	17 1/2	17 1/2 x 22 1/4	Inches 44	\$250.00
S-3	15 1/4	15 1/4 x 22 1/2	Inches 38	\$200.00

### "2 in 1" CHEMICALS

Fig. 4699

Packed in heavy steel containers, hermetically sealed and are guaranteed against deterioration regardless of climatic conditions.

★ NET POUND, \$0.15



Attach Hose to the Water Supply and the Generator is Ready to Use.



# PUMP FIRE EXTINGUISHERS

For Classification A of Fire Appliances by Underwriters' Laboratories.

## FIRE DEPARTMENT OR BUCKET PUMPS

Very efficient for putting out small fires. Very easy operate, the pump being double acting and throwing continuous stream of water about 40 feet on both up and down strokes of the pump. Plain water is used, so at the bucket can be refilled without loss of time.

Body is heavy galvanized iron of 5 gallons capacity, enameled red on the outside and painted with asphalt paint on the inside.

LIST EACH, \$13.00

Instead of plain water, a calcium chloride solution may be used in the winter time which lowers the freezing point.

Solution consisting of:

Calcium Chloride	Water	Reduces Freezing Point to
1 lb.	1 gal.	23° F.
1 1/2 lbs.	1 gal.	14° F.
2 lbs.	1 gal.	5° F.
2 1/2 lbs.	1 gal.	2° F.
3 lbs.	1 gal.	-10° F.

The solution should be strained through a cloth to prevent clogging the pump.

Special Calcium Chloride charge,

LIST EACH, \$3.00

## UNDERWRITERS' LABELED 5 GALLON BUCKET PUMP

Fig. No. 493U

The National Board of Underwriters, recognizing the merits of the pump listed above, have incorporated a few changes in construction, and we also can furnish a pump with their Label.

Unlabeled body, with Special Calcium Chloride charge.....LIST EACH, \$3.00  
100 Pound Lot .....LIST POUND, \$0.07 1/2

Copper body. Polished.  
Copper body. Red.

LIST EACH, \$22.00

LIST EACH, \$30.00

LIST EACH, \$3.00

LIST POUND, \$0.07 1/2

## NON-FREEZING FIRE EXTINGUISHER

2 1/2 Gallon Pump Type. Underwriters' Labeled Red Enameled.

### FOR UNHEATED BUILDINGS

For installation where chemical type extinguisher cannot be used on account of freezing, yet where an approved 2 1/2 gallon machine is required, as in warehouses, cold storage plants, packing plants, docks, piers, railroad coaches, grain elevators, ice houses, and manufacturing plants unheated at night.

### FOR 40° BELOW ZERO

Eleven pounds of non-freeze chemical which is to be dissolved in 2 1/2 gallons of water. The dry chemical is packed in hermetically sealed steel containers and always absolutely reliable. The solution prevents freezing at a temperature of 40 degrees below zero.

### HEAVY TANK

Has Heavy tank, enameled red, lead lined, which absolutely prevents corrosion. The heavy bottom is swedged in. Long stroke, powerful double action brass pump with brass plunger, throws solution from 40 to 50 feet.

### SPECIFICATIONS

Total weight, extinguisher and charge, 28 pounds. Diameter, 7 inches; height over all, 22 inches; length of hose, 26 inches.

STEEL TANK .....LIST EACH, \$20.00

COPPER TANK .....LIST EACH, \$23.00

Extra Calcium Chloride charges.....LIST EACH, \$1.50

100 Pound Lot .....LIST POUND, \$0.07 1/2



Fig. No. 2935



Fig. No. 3448

## CHEMICAL EXTINGUISHERS

For Classification A of Fire Appliances by Underwriters' Laboratories

CLASS A FIRES may be defined as incipient fires in ordinary combustible materials where the QUENCHING and cooling effects of quantities of water, or solutions containing large percentages of water, is of first importance.

### 20 GALLON CAPACITY

Unlabeled. For use inside of Factories, Warehouses, Hotels, Garages, or Private Fire Departments. Easily handled and operated, mounted on two wheels, capable of passing through an ordinary size door. Very compact, an advantage in freezing temperature, permitting engine to be placed in office.

Drawn steel tank, dome and body of one piece, bottom welded in. Tank and fittings tested to 350 pounds. Forged steel frame and axle. Steel Wheels, 18 inch diameter. Acid Receptacle is cast of pure lead with brass cage at top. Cast lead stopple, 25 feet 1/2 inch ply rubber hose, attached by brass couplings. Tested to 400 pounds pressure. Brass compression nozzle. Dimensions: Outside of wheels, 19 inches; height, 50 inches; floor space 10x26 inches. Painted vermilion and black. Shipping weight, 250 pounds.

Unlabeled .....LIST EACH, \$150.00  
Labeled .....LIST EACH, \$200.00

Extra Charge .....LIST EACH, \$3.50  
Soda or Acid in large lots. See Page 77.



Fig. No. 3449

### 40 GALLON CAPACITY

40 gallon capacity tank, made of steel shell, with collar drawn integral with the head. On bottom of shell a steel base is welded which reduces possibility of tipping the engine. Tank stands a hydrostatic pressure of 1,100 pounds per square inch, is coated inside and outside with pure zinc applied by the hot galvanizing process. Cap is red brass casting, with long handles. Wheels, hickory spokes and rims, steel hub boxes and steel tires, 49 inch diameter. Forged steel handle bar. Acid bottle is of chemically pure lead protected on outside by copper sheet, with a glass neck, lead stopple and cast brass lifter. All brass castings inside of tank thoroughly coated with tin and lead. 50 feet 3/4 inch, 4-ply, "Underwriters' Laboratories" labeled chemical engine hose carried on appropriate brackets or hangers; brass couplings. Compression brass chemical shut-off nozzle. One complete charge of soda and acid. Height over all, 56 inches; width 33 1/4 inches; weight, empty, crated for shipment, 400 pounds.

Tip-Over Type .....LIST EACH, \$350.00

Manually Operated Type...LIST EACH, \$375.00

Soda or Acid in large lots. See Page 77.

DISCOUNT, Entire Page.....33 1/3% OFF



# PUMP FIRE EXTINGUISHERS

For Classification B and C of Fire Appliances by Underwriters' Laboratories. CLASS B FIRES may be defined as incipient fires in small quantities of flammable liquids, greases, etc., where a BLANKETING effect is essential. CLASS C FIRES, incipient fires in electrical equipment, where the use of a NON-CONDUCTING extinguishing liquid is of first importance. FOR INSIDE OR OUTSIDE USE AS THE FREEZING POINT OF THE LIQUID IS 50 DEGREES BELOW ZERO.

## Reddy

## HAND PUMP FIRE EXTINGUISHER

Fig. 3767

Made particularly for electrical and all fires starting in oil, gasoline, shellac, paints or other highly inflammable substances. Water only spreads oil fires and it is dangerous to use water on an electrical fire.

The lightness and ease of operation by women and children commend this extinguisher to anyone for home protection.

For standard fire protection for incipient fires by large railroads, factories and power plants.

The law requires and safety demands that motor boats carry a fire extinguisher. Is sure on gasoline and oil fires. Approved by the U. S. Steamboat Inspection Service.

Will not injure delicate fabrics or sensitive machinery. Requires no recharging unless used on a fire. This lessens the upkeep cost. Can be left in unheated buildings or in exposed places as the liquid does not freeze until it is 50 degrees below zero.

**ONE QUART SIZE**

**\$14.00** LIST EACH

**1 1/2 QUART SIZE**

**\$17.00** LIST EACH

**REDDY FIRE EXTINGUISHER FLUID**

Fig. 3738

For recharging all types and sizes of carbon tetrachloride base fire extinguishers. Made to government specifications. Freezing point minus 50° F.

1 Quart.. Each, \$1.15 | 1 Gallon.. Each, \$4.00

**DISCOUNT ..... 33 1/3% OFF**



## PYRENE HAND PUMP EXTINGUISHER

Nationally Advertised

1 and 1 1/2  
Quart Sizes

Fig. 2194

Made to Underwriters' specifications and labeled by them. In many cases insurance credit is allowed for their installation on certain types of risks. Price includes black enameled bracket.

**LIST EACH**

1 qt., brass ..... \$14.00

1 qt., chr. pltd. .... \$16.00

1 1/2 qt., brass ..... \$17.00

1 1/2 qt., chr. pltd. .... \$19.00

1 qt. can Liquid. \$ 1.50

1 1/2 qt. can Liquid. \$ 2.25

1 gallon Liquid. \$ 5.40

**1 Pint Auto Size**

Unlabeled. Large enough to handle an automobile fire and small and compact enough to be installed on any car. Extinguishers are filled, complete with regular bracket.

**LIST EACH**

1 pint, brass ..... \$10.00

1 pint, chromium plated ..... \$12.00

1 pint can Liquid ..... \$ 0.75

1 pint Auto Bracket ..... Extra, \$ 0.75

**DISCOUNT ..... 33 1/3% OFF**



## 1 GALLON PRESSURE FIRE EXTINGUISHER

UNDERWRITERS' LABELED  
FACTORY MUTUALS APPROVAL  
Fig. 4420

For protection of all electrical equipment. This extinguisher has two chambers sealed tightly against each other. The inner chamber contains the air pressure and the outer chamber contains the Fire Extinguishing Liquid. When the operating valve wheel is turned, air pressure enters the liquid chamber, expelling a continuous stream of liquid 30 to 40 feet through a flexible metal hose, rubber insulated.

An efficient pump is for renewing air pressure. An air valve permits a service air line to be used. The pressure gauge indicates the correct air pressure in the chamber. An inspection glass shows the liquid level. Weight, ready to use, is 32 pounds. 24 inches overall. 6 inch diameter. With wall bracket.

Polished Brass..LIST EACH, \$70.00

Brass, Chromium Plated LIST EACH, \$74.00

Recharge .....LIST EACH, \$5.40

**DISCOUNT ..... 33 1/3% OFF**



## TWO GALLON PUMP FIRE EXTINGUISHER

UNDERWRITERS' LABELED  
APPROVED BY THE ASSOCIATED  
FACTORY MUTUALS

Fig. 4421

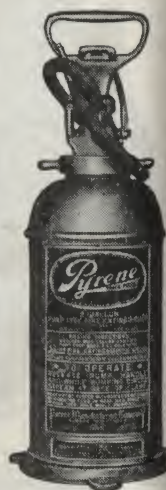
The two-gallon pump type Extinguisher is sturdily built, designed for use where additional capacity is needed for fighting such fires as electric arcs, gasoline, kerosene, grease, varnish, etc. It is especially adaptable for protection of electrical equipment in power houses and sub-stations, on electrical locomotives, electric cranes, and in industrial plants where there are large installations of electrical equipment. Inspected and labeled by the Underwriters' Laboratories, and approved by the Associated Factory Mutuals. The liquid will not freeze until it is 50 degrees below zero. Weight filled, ready for use, 41 pounds. 24 1/2 inches high. Diameter of tank is 7 inches.

Copper, Polished LIST EACH, \$70.00

Chromium Plated LIST EACH, \$74.00

Recharge .....LIST EACH, \$10.80

**DISCOUNT ..... 33 1/3% OFF**



## 'INDIAN' 5 GALLON FIRE PUMP

FORM FITTING TANK COMFORTLY FITS THE BACK

Fig. 4700

For fighting fire with water; forests; grass; brush; rubbish; awnings; roofs; factories; homes; etc. Form fitting. Ventilated tank to keep operator's back warm and dry. Both galvanized and brass tanks have heavy brass bottoms. Will never rust and will last for years. Heavy cast brass quick locking water tight filler cap with removable brass strainer. Stops water from leaking through on to operator's back. Baffle plate thoroughly riveted in tank. Rigid brass carrying handle for carrying tank, also for holding the brass hand pump and can be snapped in or out instantly. This sturdy handle riveted to tank and will not break loose. All tank joints double locked and soldered for strongest kind of construction. The large heavy, carrying strap is 1 1/2 inches wide and is adjustable for a tall or short person. Shipping weight, 13 pounds.

Galvanized Tank .....LIST EACH, \$15.00

Brass Tank .....LIST EACH, \$20.00

**DISCOUNT ..... 10% OFF**





# UNLINED LINEN HOSE—For Interior Fire Protection



Fig. 475

Unlined Linen Fire Hose SHOULD NOT BE USED FOR GENERAL SERVICE.

Linen hose deteriorates by being wet. It is therefore necessary to see that all valves are absolutely tight. The Underwriters request that purchasers do not test the hose, as linen hose is tested before it leaves the mill, and the test will merely damage the hose to an appreciable extent.

## CARE OF LINEN HOSE

For hose used in connection with interior stand-pipes for office buildings or factories, an Underwriters' unlined hose is recommended in preference to a rubber lined cotton hose. The linen hose has no lining to deteriorate with age, will last a great deal longer, and is absolutely reliable. Its chief value is for short lines for brief use inside the building; on account of its superior lightness, compactness and convenience it can be handled by one man alone. When the water is first turned on, the hose will leak slightly, but the fibers will almost immediately expand and the hose becomes practically water-tight. It is wiser to pay a fair price for a reliable fire protection hose, which does protect when called into service, than to pay a low price for a cheap hose and take the risk.

Uncoil hose from time to time that it may be dried between the layers. Very thoroughly dry the hose inside and outside after it has been wet.

Unlined linen hose is guaranteed to be free from defects in workmanship and material, but is not intended to be used for general service.

Linen hose is stiff and hard to handle, and unless intelligently used is liable to chafe or burst.

## UNDERWRITERS' LABELED FLAX LINE LINEN HOSE—First Grade

Our line yarn unlined linen hose is made strictly in accordance with both the specifications of the Associated Factory Mutual Insurance Companies and the Underwriters' Laboratories of the National Board of Fire Underwriters. It is made from the selected long fibre or "Line" yarn, and will leak less and stand a greater pressure than the shorter fibre "tow" yarn. Each 50 ft. section of line yarn linen hose bears the

yellow approving label of the Underwriters' Laboratories reading: "INSPECTED UNLINED LINEN FIRE HOSE," each length being examined and labeled under their supervision. It is practically water-tight and will not twist or elongate excessively under pressure. The label inspection service covers sizes 1 1/4 in., 1 1/2 in., 2 in. and 2 1/2 in. We carry 1 in. in stock made to the same specifications, but not labeled. Prices subject to change without notice.

### ★ NET FOOT—Couplings Charged Extra

Diameter, Inches	1	1 1/4	1 1/2	2	2 1/2
Line Yarn, Labeled	\$0.16 1/2	\$0.17 1/2	\$0.21 1/2	\$0.26	\$0.31

## UNDERWRITERS' LABELED FLAX TOW LINEN HOSE—Second Grade

Made from 100% all linen yarn, the "tow" yarn being of shorter fibre than in the flax line linen hose. It stands the same test, comes well within Underwriters' specifications; it is approved both by the National Board of Fire Underwriters and the Asso-

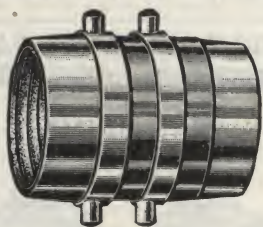
ciated Factory Mutuals'. Each 50 ft. section bears the green label of the former organization reading: "INSPECTED FLAX TOW FIRE HOSE."

1 inch is not labeled but made to same specifications. Prices subject to change without notice.

### ★ NET FOOT—Couplings Charged Extra

Diameter, Inches	1	1 1/4	1 1/2	2	2 1/2
Flax Tow, Labeled	\$0.15	\$0.15 3/4	\$0.19 1/2	\$0.23 1/2	\$0.28

## EXPANSION RING COUPLINGS—FOR FIRE HOSE



Marine. For unlined or single jacket cotton rubber lined hose. Send coupling or thread information.

### Fig. 101. ★ NET PER SET

	For Linen Hose C. R. L. Hose	For Rubber Lined Hose
1/4 inch	\$1.05	\$1.10
1/2 inch	\$1.30	\$1.50
3/4 inch	\$1.65	\$1.75
1 inch	\$2.00	\$2.00
1 1/2 inch	\$2.75	\$2.75

Automatic. For double jacket cotton rubber lined fire hose. Send coupling or thread information.

### Fig. 99. ★ NET PER SET

1/2 inch	\$2.00
3/4 inch	\$3.20
1 inch	\$4.00
1 1/2 inch Extra Heavy	\$4.90

## AUTOMATIC COUPLING EXPANDERS

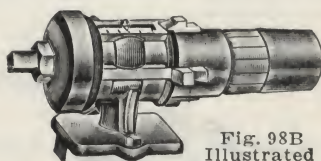


Fig. 98B Illustrated

For attaching expansion ring couplings to hose. Will stand heavy service. Has base plate for bolting to bench. Iron bar handle.

No.	★ NET EACH	No.	★ NET EACH
98A		98B	
3/4 inch	\$20.50	2 inch	\$20.50
1 inch	\$20.50	2 1/2 inch	\$22.00
No. 98C		3 inch	\$27.45
1 1/4 inch	\$20.50	3 1/2 inch	\$35.20
1 1/2 inch	\$20.50	4 inch	\$41.05

## EXPANSION RINGS



Fig. No. 293

For automatic couplings. Metal is scientifically mixed to give the maximum coefficient of expansion without fracture. Carefully finished.

### ★ NET PRICES PER DOZEN

Outside Diameter	Length	★ NET DOZEN
1 in.	5/8 in.	\$0.95
1 1/4 in.	1 1/8 in.	\$1.10
1 1/2 in.	3/4 in.	\$1.25
2 in.	1 1/4 in.	\$1.85
2 1/2 in.	1 1/2 in.	\$3.00
3 in.	1 3/4 in.	\$3.55

Sizes 3 to 6 in., Prices on Application

## CAST BRASS HOSE NOZZLES

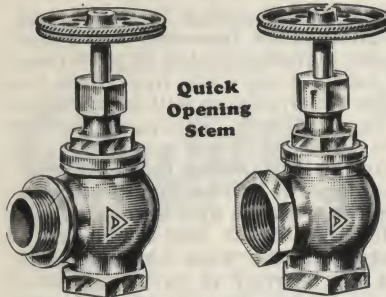
Size Inches	Discharge Inches	★ NET EACH
1-1/4 by 10	3/8	\$1.16
1-1/2 by 10	1/2	\$1.55
1-1/2 by 12	1/2	\$1.70
2 by 12	9/16	\$2.64
2 1/2 by 12	1	\$4.26



Fig. 97



## NEW YORK PATTERN SOFT DISC HOSE VALVE

Fig. No. 170  
Male Thread  
OutletFig. No. 171  
Female Pipe  
Thread Outlet

Made with a quick opening stem. On the 1½ inch valve it will open to full capacity with ¾ full turns, or about one-half the turns required by the average valve. A high pressure hose valve. Made of best steam metal of ample weight, with full waterway and renewable soft rubber disc. Intended for use with standpipes for interior fire protection, especially on wet systems where the pressure is on the valve at all times.

### ★ NET PRICES EACH

Size, Inches	Brass	Nickel Plated	Chrom- ium Plated
<b>Rough body, finished trimmings, iron wheel handle.</b>			
1-1/4	\$3.22	\$3.71	\$4.13
1-1/2	\$4.34	\$4.90	\$5.39
2	\$5.95	\$6.58	\$7.14
2x1-1/2	\$3.36	\$7.35	\$8.12
2-1/2	\$7.35	\$8.12	\$8.89
<b>Finished brass, finished brass hand wheel.</b>			
1-1/4	\$5.18	\$5.60	\$6.09
1-1/2	\$6.23	\$6.79	\$7.42
2	\$7.91	\$8.54	\$9.17
2x1-1/2	\$9.17	\$10.00	\$10.57
2-1/2	\$9.87	\$10.64	\$11.41

## UNDERWRITERS' ANGLE HOSE VALVE

For 150 and 250 Pounds Pressure

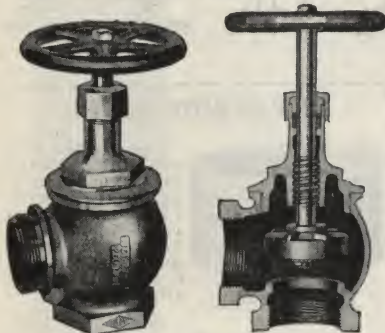


Fig. 170-U, Male; Fig. 171-U, Female  
Made to the specifications, listed and approved by the Underwriters' Laboratories and the Associated Factory Mutuals. Two weights; for pressures up to 150 lbs., and up to 250 lbs. Each valve tested to twice its rating before shipment. Iron wheel handles.

### ★ NET PRICES EACH

Size, Inches	Pres- sure Pounds	Brass	Nickel Plated	Chrom- ium Plated
<b>Rough Body, Finished Trimmings</b>				
1½	150	\$5.53	\$6.09	\$6.65
1½	250	\$6.16	\$6.72	\$7.21
2½	150	\$9.03	\$9.66	\$10.22
2½	250	\$10.00	\$10.75	\$11.55
<b>Finished Brass Body and Trim</b>				
1½	150	\$7.07	\$7.84	\$8.61
1½	250	\$7.91	\$8.47	\$9.31
2½	150	\$11.06	\$11.90	\$12.88
2½	250	\$12.32	\$12.88	\$14.28

## CHICAGO PATTERN HOSE VALVE



Fig. No. 172

Packed before shipment, a feature not generally observed with valves of this type. Furnished with rough body, tee handles and leather discs, in either hose or iron pipe thread on hose end, and iron pipe thread on lower end invariably. The 2½ in. size only can also be had with any fire department thread on hose end.

### ★ NET PRICES EACH

1 x 1	inches	.....	\$2.43
1½ x 1½	inches	.....	\$2.85
1½ x 1½	inches	.....	\$3.65
2 x 2	inches	.....	\$5.39
2½ x 2½	inches	.....	\$6.55

Wheel Handle. ★ NET EXTRA, \$0.39  
Nickel plated valves, valves with wheel handles or with soft rubber discs. Prices on application.

## UNDERWRITERS' DOUBLE MALE HOSE VALVE



Fig. No. 174

135° Angle. Two male ends. Underwriters' Approved. For sprinkler standpipe systems. Rough brass. Iron wheel handle.

1x1-1/4 Inch ...★ NET EACH, \$3.59  
1x1-1/2 Inch ...★ NET EACH, \$3.99

## BRASS HOSE CAPS FOR VALVES

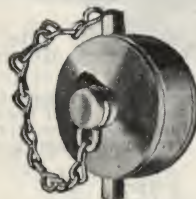


Fig. 120

¾ and 1 inch sizes without spanner lugs. Prices are for caps without chains. Chains furnished on 1½ in. size and larger at an additional charge.

### ★ NET EACH

Inch	Chain	Cap
3/4	....	\$0.27
1	....	\$0.41
1-1/4	....	\$0.56
1-1/2	\$0.45	\$0.84
2	\$0.45	\$1.26
2-1/2	\$0.45	\$1.96

## HOSE GATE VALVES Rough Body



Fig. 358

Made of heavy bronze metal and designed for use in connection with inside standpipes. They have adjustable double discs and stationary stem. They are of attractive design and ample weight. Each valve is tested before leaving the shop and warranted perfect.

### ★ NET EACH

Size, Inches	Weight	Brass Polished Trim- mings	Nickel Plated Trim- mings
1 x 1¼	Reg.	\$4.15	\$4.90
1 x 1½	Reg.	\$4.15	\$4.90
1 x 1½	Ex. Hy.	\$0.55	\$7.35
1½ x 1¼	Reg.	\$4.00	\$5.40
1½ x 1½	Reg.	\$6.10	\$8.50
1½ x 1½	Ex. Hy.	\$8.65	\$9.40
2 x 2	Reg.	\$8.80	\$9.50
2½ x 2½	Reg.	\$14.70	\$15.70
2½ x 2½	Ex. Hy.	\$18.90	\$19.90

## SINGLE HYDRANT GATES

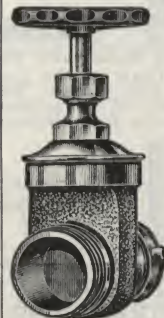


Fig. 15

These gate valves are made with a full 2½ inch waterway—valve lifting out of place; they are used next to the hydrant, so that one stream may be stopped without interfering with the others.

### ★ NET EACH,

\$16.00

## DOUBLE HYDRANT GATES

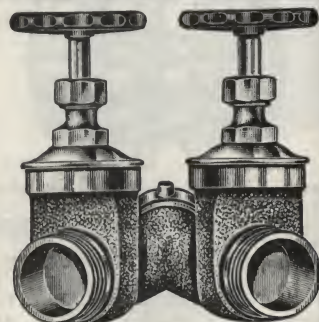


Fig. No. 14

One inlet and two outlets, to divide one stream into two, and have a shut-off valve in each outlet, so that one or both streams may be closed if desired.

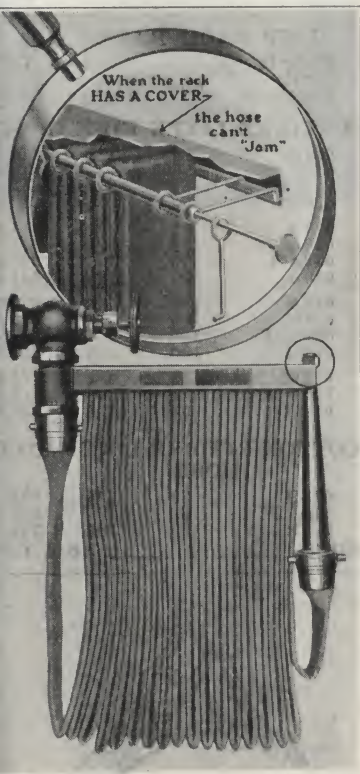
Made with or without swivels and with wheel or "T" handles. Be sure to specify when ordering.

2½ x 2½ x 2½ inch. ★ NET EACH, \$34.60  
Other Sizes...Price on Application



## BOWES HOSE RACKS

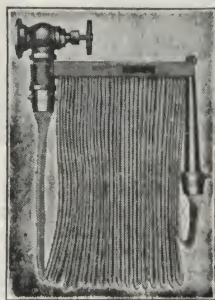
The Bowes feature consists of a tubular arm on which eyeletted pins are slideably mounted. The opposite ends of the pins are designed to fit in a channel parallel to the tubular arm, thus supporting the folded hose. This gives a positive support; the pressure is equal on both arms, prevents pinching of the hose, and absolutely holds it in place until the hose is withdrawn at the open end, the pins remaining on the extension arm, as shown in the illustration. The cover of the Bowes rack which protects the hose, is formed from one piece of heavy sheet steel, firmly joined to malleable iron back.



**SPECIFY STYLE OF RACK WANTED\*.** Furnished with wall bracket (Fig. 137); pipe clamp (Fig. 138); lug nipple (not illustrated); or pipe nipple (Fig. 139). Specify style of rack when ordering.\* Combination escutcheon can be furnished, at an extra charge.

**SPECIFY HOSE SIZE AND CAPACITY OF RACK.**

### BOWES REGULAR HOSE RACK WITHOUT SEMI-AUTOMATIC FEATURE



Style G  
With Valve Nipple  
Fig. 139. Regular  
(139 U. Underwriters)



Style F  
With Pipe Clamps  
Fig. 138. Regular  
(138 U. Underwriters)



Style E  
With Wall Brackets  
Fig. 137. Regular  
(137 U. Underwriters)

For 1¼, 1½, 2 and 2½ Inch Unlined Linen Hose

The regular type Bowes rack is used where an Underwriters' labeled rack is not required. This type is furnished without the semi-automatic feature required on Underwriters' racks, and is made with swivel back. Made for 1¼, 1½, 2 and 2½ inch unlined linen hose. When ordering specify size of hose.

### BOWES UNDERWRITERS SEMI-AUTOMATIC RACK

For 1¼ or 1½ Inch Unlined Linen Hose

Accepted, labeled and listed by the Underwriters' Laboratories of the National Board of Fire Underwriters. The Underwriters insist that the rack for first aid fire streams shall be so constructed that when the valve is open before the hose is removed, the first fold of hose will hold the water in control (see illustration); the idea being to permit one man to operate the fire station. Open the valve, remove nozzle, run to the fire, then a slight tug on the hose will release the water pressure, the nozzle being in control at all times. The semi-automatic device is a small plate which exerts enough pressure to hold the water in control at the first fold of hose.

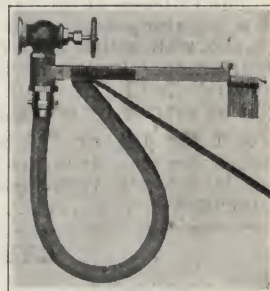


Fig. 139U. Underwriters' Rack in operation, with stream in control until operator reaches the fire

### PRICES ON REQUEST

### AUTOMATIC SPRINKLER HEAD STOPPER

Fig. 3684  
Upright Type  
Illustrated  
Fig. 3683  
Inverted Type



**SEE THE POINT.** Sprinkler Head Shut-Off just before inserting in the crown of the sprinkler head. Push into crown and drop pole.

- 1st. What is the name of your sprinkler head?
- 2nd. Specify whether you have upright type, Fig. 3684 or inverted type Fig. 3683 sprinkler heads.
- 3rd. How long do you want the poles?

Instantaneous Sprinkler Head Shut-Off. Will hold any pressure. Made to fit any sprinkler head wet or dry system. Prevents damage and protects your property; when a sprinkler head gets into action you do not have to get at the shut-off valve in order to stop it, and wait until it drains.

Sprinkler Stopper, with 8 foot pole, clamps and display cards .....★ **NET COMPLETE, \$5.00**

Combination Sprinkler Stopper. Inverted type on one end, and upright type on other end, with 8 foot pole, clamps and display cards....★ **NET COMPLETE, \$8.00**

Every additional 2 feet over 8 feet.....★ **NET, \$0.25**  
Lots of 12 or more.....★ **10% OFF**

**HOW TO ORDER**



# FIRE HOSE RACKS AND REELS

## HARTFORD WAREHOUSE SWINGING HOSE RACKS



Fig. 144. Style A  
With Pipe Clamps

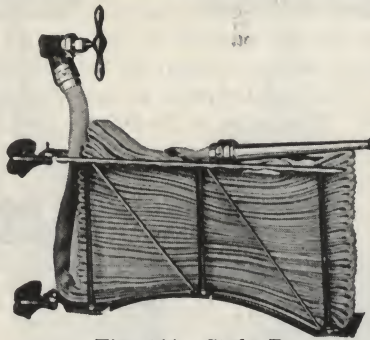


Fig. 144. Style B  
With Wall Brackets

For use in warehouses and manufacturing plants. With arched bedplate. The hose lies better in a rack of this type, since the arch helps support the weight of the hose and distributes it more evenly, thus relieving the folded ends of much of the pressure. The top of the hose in this rack will be level, and present a good appearance. The hose is folded flat, and as the rack is usually suspended about six feet from the floor, the hose is protected from damage yet is instantly available in case of emergency. The Hartford Rack is listed and approved by the Associated Factory Mutual Insurance Companies for use in building under their jurisdiction. The regular finish of Hartford Racks is red. We also furnish racks in any special finish at slight extra cost. Shipped "knocked down," one in a box, thus insuring their safe arrival. Two pipe clamps are furnished, up to and including 4 inch, without charge. Larger size pipe clamps are extra.

### IMPORTANT:

When ordering be sure to specify length of sections and size of hose. Capacity of these racks is figured on hose of specified lengths with only one set of couplings. Where hose is coupled in shorter lengths than capacity given so that 2 or more sets of couplings are required, next larger size rack must be ordered.

When ordering racks with pipe clamps, give the size of the standpipe.

### LIST EACH RACK

Style A Pipe Clamp	Style B Wall Brackets	Capacity Feet	Hose Size Inches	LIST EACH RACK
--------------------------	-----------------------------	------------------	------------------------	----------------------

### FOR UNLINED LINEN FIRE HOSE

17H	017H	50	1 1/4	\$10.00
18H	018H	50	1 1/2	\$10.00
19H	019H	50	2	\$10.00
20H	020H	50	2 1/2	\$10.00
17A	017A	75	1 1/4	\$11.00
18A	018A	75	1 1/2	\$11.00
19AH	019AH	75	2	\$11.00
20A	020A	75	2 1/2	\$11.00
21A	021A	100	1 1/4	\$12.00
21H	021H	100	1 1/2	\$12.00
21 1/2 H	021 1/2 H	100	2	\$12.00
22H	022H	100	2 1/2	\$12.00
23H	023H	150	1 1/2	\$14.00
23 1/2 H	023 1/2 H	150	2	\$14.00
24H	024H	150	2 1/2	\$14.00

### FOR COTTON RUBBER LINED MILL HOSE

25H	025H	50	1 1/2	\$15.00
25 1/2 H	025 1/2 H	50	2	\$15.00
26H	026H	50	2 1/2	\$16.00

DISCOUNT ..... 40% OFF

## CHICAGO FIRE HOSE RACKS

The Chicago Hose Rack is cheap, presents a good appearance, and is a popular seller. We make it in three sizes. It can be attached to the wall either above or below or at the side of the standpipe connection. It will carry fifty feet of rubber lined cotton hose, or one hundred fifty feet of unlined linen hose. A longer length of hose can be carried by making longer folds. Regular finish is red.

No. 1 for 1 1/4 or 1 1/2 inch hose	LIST EACH, \$5.00
No. 2 for 2 inch hose	LIST EACH, \$5.50
No. 3 for 2 1/2 inch hose	LIST EACH, \$6.00
DISCOUNT	20% OFF

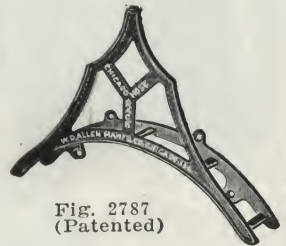


Fig. 2787  
(Patented)

## RYERSON HOSE REELS—For Cotton Rubber Lined Hose

Center braces on which the hose rests are made of wood—this prevents rusting. Side castings are finished in solid black which present a pleasing contrast to the red braces. A brass wire clip engaging in the side arm prevents unreeling of the hose by the weight of the nozzle, this does not interfere with easy operation of the reel in case of fire.

Hose Reels are designed especially for Cotton Rubber Lined Fire Hose. They are sometimes specified for Unlined Linen Fire Hose, but a Hose Rack is to be preferred as a reel is not approved, and does not carry the label of the Underwriters' Laboratories.

**Important:** Reel capacity is figured to hold hose of the specified length with only 1 set of couplings. If coupled in shorter lengths than capacity given, order the next larger size reel. Where reel is swung from pipe, pipe clamps are furnished, up to 4 inch, without charge. Larger sizes are extra.

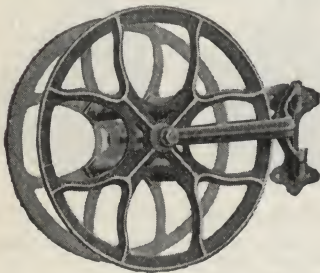


Fig. 145. Swinging

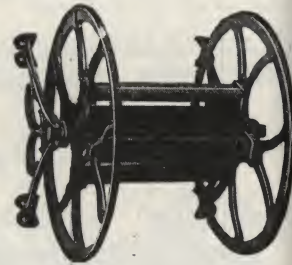


Fig. 146. Stationary

### FIG. 145. SWINGING REELS

With pipe clamps or wall brackets. \*Specify size of standpipe.

Cap. Feet	For Hose, Inches	With* Pipe Clamps	With Wall Brackets	LIST EACH
50	1 1/4—1 1/2	No. 1A*	No. 01A	\$14.00
50	2	No. 2A*	No. 02A	\$14.00
50	2 1/2	No. 3A*	No. 03A	\$15.00
100	1 1/4—1 1/2	No. 4A*	No. 04A	\$19.00
100	2	No. 5A*	No. 05A	\$19.00
100	2 1/2	No. 6A*	No. 06A	\$19.00

### FIG. 146. STATIONARY REELS

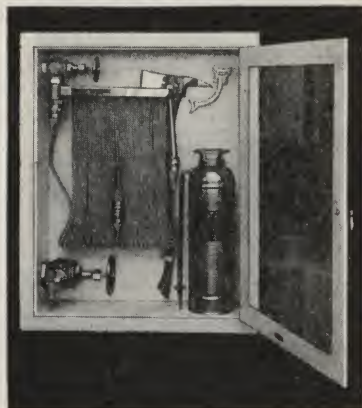
Furnished with wall brackets only.

Cap. Feet	For Hose, Inches	With Wall Brackets	LIST EACH
50	1 1/4—1 1/2	No. 07B	\$14.00
50	2	No. 08B	\$15.00
50	2 1/2	No. 09B	\$16.00
100	1 1/4—1 1/2	No. 010BR	\$17.00
100	2	No. 011B	\$18.00
100	2 1/2	No. 012B	\$19.00

DISCOUNT ..... 40% OFF



**Pressed Steel Cabinet, Hollow Steel Doors and Trim. With Full Glass Panel or Duo-Panel Doors**



1A Hose Unit. Fig. 192 Cabinet

**Hinges.** All standard cabinets are equipped with hinges on the right hand side. Hinges on the left hand side can be furnished only when specified. Loose pin hinges and lever handle catch on standard cabinets are of brass, nickel plated. Bullet catch and pull handle can be furnished if desired.

50 75 100	$\left\{ \begin{array}{l} 1\frac{1}{2} \\ \text{and} \\ 2\frac{1}{2} \end{array} \right\}$	30%	38%	8½	35½	43½	3⅞	8	26x34	31½	39½	8	\$35.00	\$44.00	\$40.00
-----------------	--	-----	-----	----	-----	-----	----	---	-------	-----	-----	---	---------	---------	---------



## STANDPIPE SIAMESE

**Note:** Check valve in the standpipe system is required with these Siamese, otherwise we cannot guarantee them.  
**IMPORTANT:** When ordering, always supply thread information, to avoid delay.

### With Double Clapper Valves

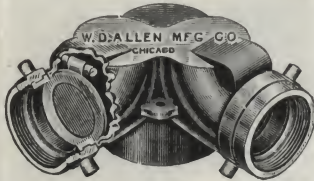


Fig. No. 230

A ninety degree Siamese, made to economize space. For use with pipe projecting through the sidewalk. Conforms to all fire department specifications. Standard finish, rough; can be furnished polished.

#### ★ NET PRICES

2 1/2 x 2 1/2 x 3 inch.	★ Net Each, \$14.00
2 1/2 x 2 1/2 x 4 inch.	★ Net Each, \$14.70
2 1/2 x 2 1/2 x 6 inch.	★ Net Each, \$18.90
3 1/2 x 3 1/2 x 6 inch.	★ Net Each, \$53.40

#### Other Sizes...Price on Application

Net extra for polishing, 3 and 4 in., \$2.85 each; 6 in., \$5.00 each.

### 45 Degree Angle. With Single Interior Self-Closing Clapper Valve



Fig. 26

This Siamese is for use only at the base of an outside, exposed standpipe in connection with fire escape. Made with a single interior self-closing clapper valve so that one or both streams can be used. Rough finish. Specify thread.

Size, Inches	★ NET EACH
2 1/2 x 2 1/2 x 2 1/2	\$11.20
2 1/2 x 2 1/2 x 3	\$11.20
2 1/2 x 2 1/2 x 4	\$11.90
2 1/2 x 2 1/2 x 5	\$16.10
2 1/2 x 2 1/2 x 6	\$18.20

Net extra for polishing, 2 1/2, 3 or 4 inch, \$2.80 each; 5 or 6 inch, \$5.00 each. Chromium plating, price on application. Plugs and Chains extra.

## PLUGS FOR SIAMESE

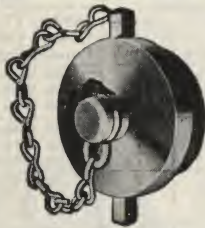


Fig. No. 2114

Galvanized iron and brass plugs are still specified in some cities for the protection of open Siamese Connections. Iron plugs are usually furnished with galvanized iron finish, but can be red enameled if preferred. The brass plugs are polished, but can be nickel plated or chromium plated, price on application.

Prices include iron or brass chains.

#### ★ NET PRICES PER PAIR

Size, In.	Iron	Brass
2 1/2	\$3.08	\$5.04
3	\$3.78	\$6.30
3 1/2	\$4.48	\$8.05

### With Two Check Valves



Fig. No. 221

A short, straightway Siamese, used when supply is through the wall, medium weight, made with two independent automatic closing check valves. Made to conform to all fire department specifications. Rough finish. Can be furnished polished.

#### ★ NET PRICES

2 1/2 x 2 1/2 x 3 inch.	★ Net Each, \$16.10
2 1/2 x 2 1/2 x 4 inch.	★ Net Each, \$16.10

#### Other Sizes...Price on Application

Net extra for polishing, 4 in., \$2.50 each; 6 in., \$4.50 each.

## ESCUTCHEONS AND NAME PLATES FOR SIAMESE

For use with different types of Siamese Connections. Plates in special sizes and with special wordings, made to order.



Fig. 265

### ROUND ESCUTCHEONS

Made to read "Automatic Sprinkler" or "Standpipe Connection," as desired.

Pipe Diam.	Material and	★ NET EACH
Ins.	Ins. Finish	
3 or 4	10 1/2 Bronze	\$5.95
3 or 4	10 1/2 Iron, Red Finish	\$2.40
6	14 Bronze	\$6.55
6	14 Iron, Red Finish	\$2.40



Fig. 264

### RECTANGULAR NAME PLATES

Made to read "Automatic Sprinkler Connection" or "Standpipe Connection," as desired.

#### ★ NET EACH

4 1/2 x 12-inch Bronze	\$4.76
4 1/2 x 12-inch Iron, Red Finish	\$1.80

## SENSIBLE SWIVEL CAPS

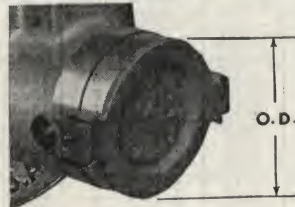


Fig. 132

### Listed and Approved by the Underwriters' Laboratories

Neat and attractive protection for standpipe and steamer hose connections. It is made of gray iron galvanized and in case of emergency is easily broken. The ears which encircle lugs of the swivel are so arranged that in screwing the cap onto the swivel the front or plate of the cap is tightly drawn up against the end of the swivel giving a tight dust-proof protection.

Size	O. D. of Swivel	★ NET PAIR
Inches		
2-1/2 Small	3-9/16 or Less	\$1.40
2-1/2 Large	3-9/16 to 3-29/32	\$1.40
3	3-15/16 to 4-3/16	\$1.62

## FUSIBLE LINKS—FOR FIRE DOORS



Fig. 3861

Mfrs. No. 096. Manufactured to meet the specifications of the Factory Mutual Laboratories. It fuses at 160° Fahrenheit.

★ NET DOZEN, \$3.60

## DAVY AUTOMATIC FIRE ESCAPE

A dependable, 100% efficient, easy operating, fool proof, panic proof, fireproof, SAFE means of escaping from a window in case of fire. Performs perfectly and never changes in its performance and will empty any building regardless of its height in a very short space of time.

### All Steel



Fig. 4144

Made of pressed steel, six inches in diameter, two and one half inches deep and weighs 3 1/2 pounds. Mechanism consists of a sheave wheel around which the steel cable runs connected by a series of gears to a positively automatic brake controlled by centrifugal force. Galvanized steel cable with tight braided cover. Weighs about a pound to every 20 feet. Life belts fasten to each end of cable and are made of high quality harness webbing. Also steel loops for small children.

Fire Escape with two life belts, reel and screws, LESS cable.

★ NET EACH, \$20.00

Cable. Specify Length.

★ NET FOOT, \$0.14



CARDBOARD SAFETY  
SIGNS PRINTED RED



Fig. 277

"EXIT," Size 11x14 inches, 6 inch letters .....List Dozen, \$0.90  
"NO SMOKING," Size 7x22 inches, 6 inch letters.....List Dozen, \$1.10  
"FIRE ESCAPE," Size 14x22 inches, 6 inch letters, printed both sides .....List Dozen, \$1.25  
"FIRE EXTINGUISHER," Size 8x22 inches, 3 inch letters.....List Dozen, \$1.10  
"STAND PIPE," Size 9x28 inches, 6 inch letters.....List Dozen, \$1.25  
DISCOUNT .....20% OFF

GLASS SAFETY SIGNS

Complies with all ordinances. 6 inch white letters on glass with translucent red background. Metal boxes have proper holes punched in bottom for electricity, gas, or oil lamps.



Fig. 4135. 10 by 8 inches.

EXIT SIGN	★ NET EACH	★ NET DOZEN
Complete Sign	\$2.50	\$23.00
Extra Glass Only	\$1.00	\$ 8.00
Extra Box Only	\$1.50	\$15.00



Fig. 4136. 18 by 8 inches.

FIRE ESCAPE SIGN	★ NET EACH	★ NET DOZEN
Complete Sign	\$4.25	\$37.50
Extra Glass Only	\$1.75	\$13.50
Extra Box Only	\$2.50	\$24.00

METAL SAFETY SIGNS

Made of iron, mainly 30 gauge. Paint enamel baked on. State number and inscription. Other signs not shown can be furnished. Write for prices when quantities of 50 or more are required.



Fig. 4137

10 by 7 inches. 6 inch embossed red letters. Complies with most ordinances.  
★ NET EACH, \$0.45  
★ NET DOZEN, \$4.50

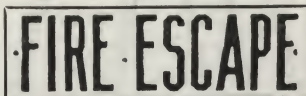


Fig. 4138

20 by 7 inches. 6 inch embossed red letters. White ground. Complies with most ordinances.  
★ EACH, \$0.60      ★ DOZEN, \$6.00

Fig. 5326

12 by 3-3/4 inches. Stamped metal sign with words: FIRE ESCAPE. Red letters. White ground.  
★ EACH, \$0.30      ★ DOZEN, \$2.50

Fig. 5327

ARROW. To be used with the above FIRE ESCAPE sign. Can be turned over to have the arrow point in the opposite direction.  
★ EACH, \$0.25      ★ DOZEN, \$1.50

DECALCOMANIA  
TRANSFER SIGN

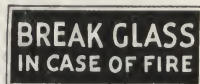


Fig. 4422

6 by 2-1/2 inches. Red letters with gold edge. Black background. Red border.  
★ EACH, \$0.30      ★ DOZEN, \$2.50

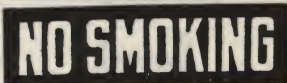


Fig. 4140. 14 by 4 inches. Embossed white letters. Red ground.  
★ EACH, \$0.40      ★ DOZEN, \$3.60



Fig. 4141. 19 1/2 by 7 inches. White letters. Red ground.  
★ EACH, \$0.60      ★ DOZEN, \$6.50

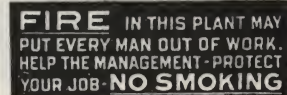


Fig. 4142. 20 by 7 inches. White letters. Red ground.  
★ EACH, \$0.95      ★ DOZEN, \$9.00

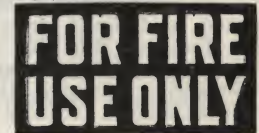


Fig. 4143. 10x7 inches. White letters. Red ground. Sign eliminates thoughtless tampering with fire protection equipment.  
★ EACH, \$0.60      ★ DOZEN, \$6.00

RUBY EXIT GLOBES

Sandblasted lettering. SPECIFY pendant type (as shown) or upright type.  
★ NET EACH

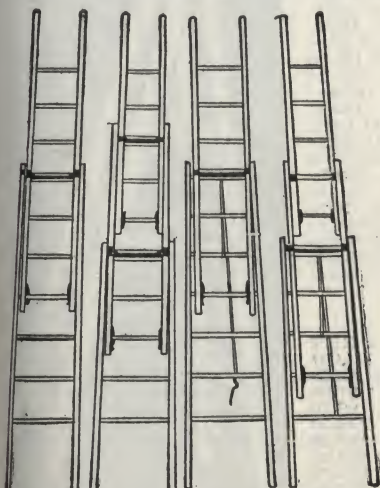
Inches	
3-1/4x6	\$1.80
3-1/4x7	\$2.20
3-1/4x8	\$2.55
4 x8	\$2.55
For gas	
2-1/4x5	\$1.80



Fig. 4802

Plain & Rope Extension Ladders

Stiles made from Norway pine, 1 1/8 in. hickory rungs, carefully constructed with every consideration for safety, utility and convenience. Rungs fit absolutely tight and are permanent, rigid and firm. Width of top section for 2 section ladders is 16 in.; for 3 section ladders, 14 in. Ladders made in multiples of 2 feet, from 8 feet to 24 ft.



2 section Plain    3 section Plain    2 section Rope extension    3 section Rope extension

IMPORTANT—When ordering 2 or 3 section ladders be sure to give length of each section, not length over all.

Plain Extension

Fig. 2966

Length of Each Section	2 Section	3 Section
	★ NET FOOT	★ NET FOOT
8 to 16 feet	\$0.39	\$0.42
18 and 20 feet	\$0.42	\$0.48
22 and 24 feet	\$0.48	\$0.54

Prices on Application For Rope  
Extension and Windlass  
Extension Ladders

NOTE—When ordering an Extension Ladder, which will measure, for example, 28 feet overall, it is necessary to order a 16 foot bottom section and a 16 foot top section. In a 2 section Extension allow 4 feet (2 feet in each section) in addition to the height wanted. In a 3 section Extension allow 6 feet (2 feet in each section) in addition to the height wanted.

SAFETY  
LADDER SHOES

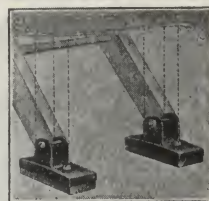


Fig. 3967

Eliminate a man at the foot of the ladder without endangering life or limb.



Complies with National and State Safety Codes. The composition Non-Slip inserts (renewable) hold tight to any floor. Pay for themselves in a short time in actual labor saved. Made of heavy compressed steel. Scientifically designed. Strong and light in weight. Easily attached to any ladder.

★ NET SET OF 2, \$2.25



**ELECTRICIANS' LADDER**



Fig. 2963

Designed and built for hard usage. Made of Norway pine. Every step is rodded, trussed and angle braced, prevents ladder from getting shaky. Strong sash cord center string. All sizes 14-1/2 inches at top. 4 foot ladders are 20-1/2 inches at bottom, and increase 1-1/2 inch in width for each foot in height. Weight 3 lbs. to the foot.

Length	★ NET EACH
4 ft.....	\$2.00
5 ft.....	\$2.40
6 ft.....	\$2.75
7 ft.....	\$3.40
8 ft.....	\$3.75
10 ft.....	\$4.70
12 ft.....	\$6.70
14 ft.....	\$7.75
16 ft.....	\$8.80

**ALENCO SPECIAL STEP LADDER**

Malleable  
Top  
Iron

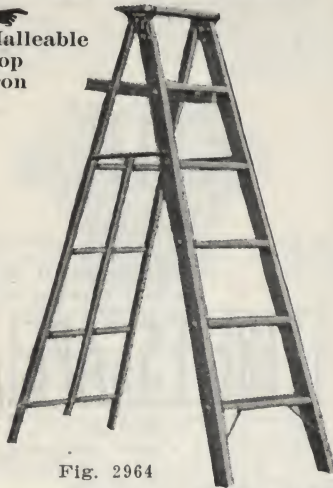


Fig. 2964

For general use where a ladder of great strength with wide steps is required. Tested to withstand supporting weight of over 3000 lbs. Made of select spruce, steps rodded and trussed, pail handle spreader, pail shelf 12-1/2x7-1/2 inches, top 6-1/2x18 inches, steps 4 inches wide. Outside width of ladder at top, 14 inches. 4 foot ladders are 19 inches at bottom, increasing to 38 inches on 16 foot ladders. Weight 4 lbs. per foot.

Length	★ NET EACH
4 ft.....	\$ 2.40
5 ft.....	\$ 3.00
6 ft.....	\$ 3.60
7 ft.....	\$ 4.20
8 ft.....	\$ 4.80
10 ft.....	\$ 6.00
12 ft.....	\$ 9.00
14 ft.....	\$10.50
16 ft.....	\$12.30

**GENERAL PURPOSE STEP LADDER**



Fig. 2965

A strongly built ladder for household and general purposes. Made of select Norway pine, rodded under every step. Has pail shelf 12-1/2x7-1/2 inches, top 5-5/8x18 inches, steps 4-1/2 inches wide. Ladders are 13 inches wide at top. 4 foot ladders are 19 inches at bottom, increasing to 31 inches on 12 foot ladder. Weight 3 lbs. per foot.

Length	★ NET EACH
4 ft.....	\$1.68
5 ft.....	\$2.10
6 ft.....	\$2.52
7 ft.....	\$2.94
8 ft.....	\$3.36
10 ft.....	\$4.20
12 ft.....	\$5.76

**MECHANIC'S STEP LADDER**

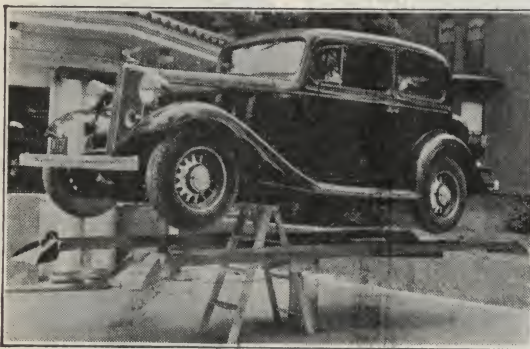


Fig. 5252

**THE STRONGEST STEP LADDER MADE.** For extra heavy duty work and is particularly adapted for the use of mechanics and millwrights. Made of Southern Pine, 25/32 by 6-1/2 inch top. The steps are 25/32 by 4-1/2 inches. The rails are 1 by 3-1/4 inches. The legs are 1 by 2-1/2 inches. Back equipped with 1-1/8 inch straight grained Round Hickory rungs which can be used as steps. Each step is mortised, rodded and trussed. Heavy malleable top iron. Approximate weight is 5 POUNDS TO THE FOOT.

Length	★ NET EACH	Length	★ NET EACH
4 Foot .....	\$3.50	12 Foot .....	\$10.50
5 Foot .....	\$4.40	14 Foot .....	\$14.00
6 Foot .....	\$5.30	16 Foot .....	\$16.00
8 Foot .....	\$7.00	18 Foot .....	\$19.90
10 Foot .....	\$8.80	20 Foot .....	\$22.00

**ALENCO SAFETY LADDER**

**TWO MEN CAN WORK ON THIS SAFETY LADDER AT ONE TIME** as the back is sturdily constructed with round heavy hickory rungs and the work shelf can be swung down.

Designed to combine utility and safety with durability. It folds compactly for convenient handling or storage. Made of thoroughly seasoned selected stock. Rigid work shelf 10 by 14 inches, slotted to accommodate tools, bound by channel iron, swings inside the rails when the ladder is folded. Broad sturdy platform 16 by 16 inches gives a firm level footing and unrestricted hand movement. 3-5/8 inch steps, full rodded & trussed.

Height to Platform	Height Overall	★ NET EACH
3 Feet	5 Feet	\$5.60
4	6	\$7.00
5	7	\$8.70
6	8	\$10.50
7	9	\$12.20
8	10	\$14.00
10	12	\$15.70
12	14	\$18.90
14	16	\$24.30
16	18	\$27.60
18	20	\$31.20





# Alenco High Speed BEARING BRONZE



## A Standard Wear Resisting Alloy

The perfect metal for non-adjustable bearings, bushings and small gears in

**Automobiles**

**Gas and Oil Engines**

**Textile Machinery**

**Motorcycles**

**Machine Tools**

**Generators, Motors**

and high speed machines of all kinds.

We have deliberately gone out to make the best bearing bronze we possibly can. Alenco Bronze has 10 per cent of tin, 80 per cent of copper, and 10 per cent lead. This mixture is the approved, long wearing, tried, S. A. E. specifications.

1 to 99 Pounds

**45c** ★NET POUND

100 to 299 Pounds

**42c** ★NET POUND

300 Pounds or More

**40c** ★NET POUND

Alenco Bearing Bronze is a tough, wear resisting alloy that is unsurpassed for bearings, bushings and small gears. These bars are perfect, free from gas pockets and sand holes, machine molded, sand-blasted and inspected before shipping.

## STOCK SIZES

Our Brass Foundry is continually adding to its assortment of bearing bronze, and will ship any sizes whatever promptly. The list simply gives the sizes we carry in stock in the ALENCO grade.

### Solid Bars

#### All 12 Inches Long

Diameter Inches	Approximate Weight
3/8	6 oz.
1/2	11 1/2 oz.
5/8	1 1/4 oz.
3/4	1 5/8 lbs.
7/8	2 1/4 lbs.
1	3 lbs.
1 1/8	3 3/4 lbs.
1 1/4	4 3/4 lbs.
1 3/8	5 3/4 lbs.
1 1/2	6 3/4 lbs.
1 3/4	9 lbs.
2	11 7/8 lbs.
2 1/4	15 lbs.
3	32 lbs.

### Cored Bars—All 12 Inches Long

Outside Diam. In.	Inside Diam. In.	Approx. Wt. Lbs.	Outside Diam. In.	Inside Diam. In.	Approx. Wt. Lbs.	Outside Diam. In.	Inside Diam. In.	Approx. Wt. Lbs.
1	1/2	2 1/4	1 7/8	3/4	10 1/2	2 3/4	1 7/8	11 3/4
1 1/8	1/2	3	1 7/8	1	9	3	1	29
1 1/4	1/2	4	1 7/8	1 1/4	6 1/4	3	1 3/4	17 3/4
1 1/4	5/8	3 1/2	2	3/4	10 1/4	3	1 7/8	16 1/4
1 1/4	3/4	3 5/8	2	7/8	9 5/8	3	2	15 1/2
1 3/8	1/2	5	2	1	9 3/4	3 1/4	2 1/4	16 3/8
1 3/8	5/8	4 1/2	2	1 1/8	8	3 1/4	2 5/8	16
1 3/8	3/4	4 1/8	2	1 1/4	8 3/4	3 3/8	2 1/2	15
1 3/8	7/8	3 1/2	2 1/4	3/4	12 1/2	3 1/2	1 1/2	35
1 1/2	1/2	6 1/8	2 1/4	1	14 1/2	3 1/2	2 1/2	15 3/4
1 1/2	5/8	5 1/2	2 1/4	1 1/4	10 1/4	3 3/4	2 1/2	20 1/4
1 1/2	3/4	5 5/8	2 1/4	1 3/8	9 1/4	3 3/8	3	15 3/4
1 1/2	7/8	4 1/2	2 3/8	1	13 1/2	4	1 1/2	42
1 3/8	3/4	5 3/4	2 3/8	1 1/4	11 7/8	4	3	18
1 3/8	7/8	5 1/2	2 1/2	1	18 1/2	4 1/8	3 3/8	14 1/2
1 3/8	1	5 1/4	2 1/2	1 1/4	16 1/2	4 1/2	3 3/4	16
1 3/4	1/2	8 1/8	2 1/2	1 1/2	14	5	3	41 3/4
1 3/4	5/8	7 3/4	2 1/2	1 5/8	10 5/8	5 1/8	4 1/4	29
1 3/4	3/4	7 1/2	2 1/2	2	8	5 3/8	4 1/4	34
1 3/4	7/8	6 5/8	2 5/8	1 3/4	10	5 3/4	3 3/4	45
1 3/4	1	6 1/8	2 3/4	1 1/2	18 3/4			

## GRADE "B" BEARING BRONZE—Made to Order Only

High grade bronze mixture not so rich in tin. Made to order only on short notice in any of the sizes above. Not carried in stock, but shipped promptly.

1 to 99 Pounds

★NET POUND

**43c**

100 to 299 Pounds

★NET POUND

**40c**

300 Pounds or More

★NET POUND

**38c**



# COLD DRAWN STEEL SHAFTING

**NOTE:** Base Prices quoted on shafting were correct when this book went to press. Orders, however, will be billed at lowest market prices current when order is received. Shortest stock length is 10 feet. Cutting is extra as shown below. **YOUR NET COST IS:** Base; Plus Quantity Extra, Plus Size Extra, Also see Miscellaneous net extras.



Fig. No. 601

## PRICE EACH 100 POUNDS, Round, Square, Hexagon or Flat Shafting

BASE, LESS THAN 500 POUNDS.....\$5.70 | BASE, 500 POUNDS OR MORE.....\$4.20

## ADD NET QUANTITY EXTRAS EACH 100 POUNDS

0-100 Lbs. .... \$2.50 | 100-299 Lbs. .... \$1.25 | 300-499 Lbs. .... \$0.75 | Over 500 Lbs. .... \$0.25

## ADD NET EXTRAS FOR SIZE

### ROUNDS—Net Extra Per 100 Lbs.

1/8 to 5/32 inch.....	\$3.00	2-9/16 to 3 inch.....	\$0.80
3/16 to 7/32 inch.....	\$2.00	3-1/16 to 3-3/8 inch.....	\$0.90
1/4 inch.....	\$1.25	3-7/16 to 3-3/4 inch.....	\$1.00
5/16 inch.....	\$1.00	3-13/16 to 4-1/8 inch.....	\$1.15
3/8 to 7/16 inch.....	\$0.90	4-1/2 to 4-7/8 inch.....	\$1.35
1/2 to 9/16 inch.....	\$0.85	4-3/16 to 4-7/16 inch.....	\$1.25
5/8 inch.....	\$0.70	4-15/16 to 5-3/8 inch.....	\$1.45
11/16 to 3/4 inch.....	\$0.60	5-7/16 to 5-7/8 inch.....	\$1.95
13/16 to 1-7/16 inch.....	\$0.55	5-15/16 to 6-3/8 inch.....	\$2.40
1-1/2 to 2 inch.....	\$0.60	6-7/16 to 7 inch.....	\$3.25
2-1/16 to 2-1/2 inch.....	\$0.65		

### SQUARES—Net Extra Per 100 Lbs.

1/8 to 5/32 inch.....	\$5.00	1/2 to 5/8 inch.....	\$1.30
3/16 to 7/32 inch.....	\$4.00	11/16 to 1-5/16 inch.....	\$1.05
1/4 to 5/16 inch.....	\$2.50	1-3/8 to 2 inch.....	\$1.25
3/8 to 7/16 inch.....	\$1.75	2-1/16 to 2 inch.....	\$2.00

### HEXAGONS—Net Extra Per 100 Lbs.

1/8 in. to 5/32 in.....	\$5.00	1 in. to 1 1/4 in.....	\$0.50
3/16 in. to 7/32 in.....	4.00	1 1/4 to 1 1/2 in.....	.45
1/4 in. to 5/16 in.....	2.50	1 1/2 in. to 1 3/4 in.....	.50
5/16 in.....	1.75	1 3/4 in. to 1 7/8 in.....	.60
3/8 in.....	1.25	1 7/8 in. to 2 in.....	.75
7/8 in.....	.90	2 in. to 2 1/4 in.....	1.00
1 in.....	.80	2-13/16 to 3 inch.....	1.50
1 1/8 in.....	.70	3-1/16 to 3-1/2 inch.....	3.00
1 1/4 in. to 1 1/2 in.....	.60	3-9/16 to 4 inch.....	4.00
1 1/2 in. to 1 5/8 in.....	.55		

### FLATS—Net Extra Per 100 Lbs.

Thickness	1/4	5/16	9/16	3/4	1-1/16	1-9/16	Wider
Inches	to	to	to	to	to	to	Than
1/8 to 5/32	Wide	1/2	23/32	1	1-1/2	3	3 Inch
3/16 to 5/16		\$8.50	\$5.50	\$4.50	\$3.50	\$3.00	\$3.50
3/8 to 7/16		\$7.75	\$5.75	\$5.25	\$3.75	\$2.75	\$3.00
1/2 to 9/16			\$4.75	\$4.25	\$2.75	\$2.75	\$1.75
5/8 to 11/16				\$3.25	\$1.75	\$1.75	\$1.50
3/4 to 15/16				\$2.75	\$1.50	\$1.50	\$1.50
1 to 1-7/16					\$1.50	\$1.50	\$2.50
1-1/2 to 2-15/16						\$1.50	\$2.50

Intermediate sizes subject to next higher extra.

## ADD MISCELLANEOUS NET EXTRAS

### Boxing and Burlapping.

Boxing (minimum 75c).....\$0.50 per 100 lbs. net  
Burlapping (minimum 25c)..... .50 per 100 lbs. net

### Extra for Odd and Intermediate Sizes

The following sizes in rounds, hexagons and squares shall be considered standard:

By 64ths to 1 in., inclusive.

By 32nds, 1 1/2 in. to 1 3/4 in., inclusive.

By 16ths, 2 in. to maker's limit.

All "Odd and Intermediate Sizes" or any specifications not strictly within the limits of "Standard Manufacturing Tolerances," are subject to a net extra of \$0.25 per 100 pounds, in addition to the usual extra for size, accuracy, etc.

### Extras for Cutting, Net per Cut.

1 in. and smaller.....	\$0.25	3 1/2 in. to 4 in.....	\$0.75
1 1/4 in. to 2 in.....	.35	4 1/2 in. to 5 in.....	1.25
2 1/4 in. to 3 in.....	.50	5 1/2 in. to 6 in.....	1.50

### Extras for Long Lengths.

Length longer than 24 ft. and less than 30 ft.....	\$0.50 per 100 lbs. net
30 ft. and less than 35 ft.....	1.00 per 100 lbs. net
35 ft. and less than 40 ft.....	1.50 per 100 lbs. net
40 ft. and less than 45 ft.....	2.00 per 100 lbs. net
45 ft. and longer.....	2.50 per 100 lbs. net

Extras for long lengths apply on Rounds, Squares, Hexagons and Flats.

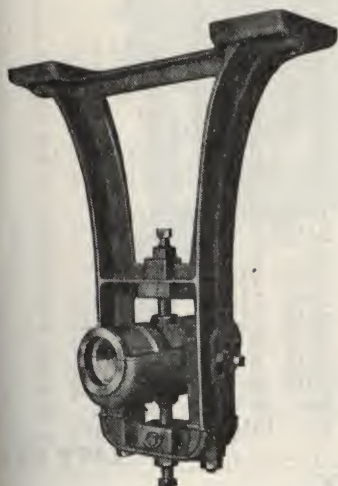
## WEIGHTS OF ROUND SHAFTING

Diam., Ins.	Length in Feet							
	8	10	12	14	16	18	20	24
1/8	.33	.414	.50	.580	.66	.75	.83	
5/32	.53	.66	.79	.92	1.06	1.19	1.32	
3/16	.76	.95	1.14	1.33	1.52	1.71	1.9	
1/4	1.34	1.68	2.016	2.352	2.688	3.024	3.36	
5/16	2.08	2.60	3.12	3.64	4.16	4.68	5.2	
3/8	3.	3.75	4.50	5.25	6.	6.75	7.5	
7/16	4.088	5.11	6.132	7.154	8.176	9.198	10.22	
1/2	5.336	6.67	8.004	9.338	10.672	12.006	13.34	16.008
5/8	6.76	8.45	10.14	11.83	13.52	15.21	16.90	20.24
3/4	8.4	10.5	12.6	14.7	16.8	18.9	21.	25.2
7/8	10.08	12.6	15.12	17.64	20.16	22.68	25.2	30.24
1	12.	15.	18.	21.	24.	27.	30.	36.
1 1/8	14.16	17.7	21.24	24.78	28.32	31.86	35.4	42.48
1 1/4	16.4	20.5	24.6	28.7	32.8	36.9	41.	49.2
1 1/2	18.8	23.5	28.2	32.9	37.6	42.3	47.	56.4
1 3/4	21.44	26.8	32.16	37.52	42.88	48.24	53.6	64.32
2	24.16	30.2	36.24	42.28	48.32	54.36	60.4	72.48
2 1/8	27.04	33.8	40.56	47.32	54.08	60.84	67.6	81.12
2 1/4	30.16	37.7	45.24	52.78	60.32	67.86	75.4	90.48
2 1/2	33.36	41.7	50.04	58.38	66.72	75.06	83.4	100.08
2 3/4	36.88	46.1	55.32	64.54	73.76	82.98	92.2	110.64
3	40.4	50.5	60.6	70.7	80.8	90.9	101.	121.2
3 1/8	44.16	55.2	66.24	77.28	88.32	99.36	110.4	132.48
3 1/4	48.08	60.1	72.12	84.14	96.16	108.18	120.2	144.24

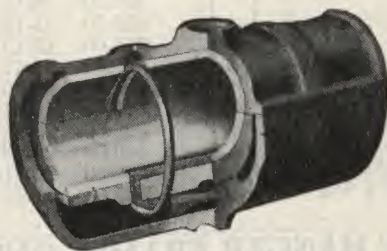
Diam., Ins.	Length in Feet							
	8	10	12	14	16	18	20	24
1 5/8	52.16	65.2	78.24	91.28	104.32	117.36	130.4	156.48
1 3/4	56.48	70.6	84.72	98.84	112.96	127.08	141.2	169.44
1 7/8	60.88	76.1	91.32	106.54	121.76	136.98	152.2	182.64
2	65.44	81.8	98.16	114.52	130.88	147.24	163.6	196.32
2 1/8	70.24	87.8	105.36	122.92	140.48	158.04	175.6	210.72
2 1/4	75.12	93.9	112.68	131.46	150.24	169.02	187.8	225.36
2 3/8	80.24	100.3	120.36	140.42	160.48	180.54	200.6	240.72
2 1/2	85.6	107.	128.4	149.8	171.2	192.6	214.	256.8
2 5/8	90.8	113.5	136.2	158.9	181.6	204.3	227.	272.4
2 3/4	96.56	120.7	144.84	168.98	193.12	217.26	241.4	289.68
2 7/8	102.40	128.	153.6	179.2	204.8	230.4	256.	307.2
3	108.16	136.2	162.24	189.28	216.32	243.36	270.4	324.48
3 1/8	114.8	143.5	172.2	200.9	229.6	258.3	287.	315.7
3 1/4	120.56	150.7	180.84	210.98	241.12	271.26	301.4	361.68
3 1/2	127.2	159.	190.8	222.6	254.4	286.2	318.	381.6
3 3/4	133.6	167.	200.4	233.8	267.2	300.6	334.	400.8
3 5/8	140.4	175.5	210.6	245.7	280.8	315.9	351.	421.2
3 1/2	147.28	184.1	220.92	257.74	294.56	331.38	368.2	441.84
3 3/4	154.48	193.1	231.72	270.34	308.96	347.58	386.2	463.44
3 3/8	161.68	202.1	242.52	282.94	323.36	363.78	404.2	485.04
3 1/2	169.2	211.5	253.8	296.1	338.4	380.7	423.	507.6
3 5/8	176.8	221.	265.2	309.4	353.6	397.8	442.	530.4
3 3/4	184.48	230.6	276.72	322.84	368.96	415.08	461.2	553.44
4	192.4	240.5	288.6	336.7	384.8	432.9	481.	577.2



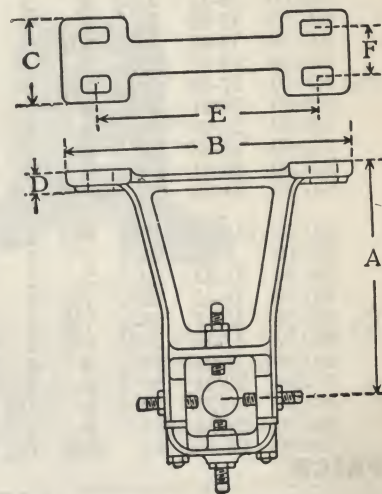
# UNIVERSAL ADJUSTMENT BALL AND SOCKET DROP HANGERS



Drop Hanger. Fig. No. 2500



Duplex Oiling Bearing



Detail of Drop Hanger

The metal in this hanger frame is proportionately distributed, concentrating the greatest possible strength where it is required.

The bearings are duplex oiling and no attention is required in keeping them in perfect running condition aside from an occasional supply of oil. The oil reservoir in the bearing keeps it in good condition and prevents leakage or dropping of oil which usually is occasioned by a plain type bearing.

Note: Intermediate sizes take next higher list.

## LIST PRICES AND DIMENSIONS

Size of Shaft	List Each	Drop A	Lgth. of Box	Base			Bolt Holes		Bolts		Size of Shaft	List Each	Drop A	Lgth. of Box	Base			Bolt Holes		Bolts	
				B	C	D	E	F	No.	Size					B	C	D	E	F	No.	Size
1/16 & 1/8	\$ 3.50 4.00 4.75	6-8 10-12 14-16	4 1/4	11 1/2 13 3/4 16	3 1/4 4 4	7/8 7/8 7/8	8 3/4 10 1/4 12 1/4	.....	2 2 2	1/2 1/2 1/2	2 1/16	\$ 8.75 9.50 10.50 11.25 12.25 14.00 16.00 19.00	6 1/2-7 1/2 10-12 14-16 18-20 22-24 26-28 30-32 34-36	9	15 18 1/2 20 1/4 22 1/2 24 1/2 26 1/2 29 32	5 1/4 5 1/2 5 3/4 6 6 1/4 7 1/2 8	1 1/2 1 1/4 1 1/4 1 1/4 1 1/4 1 1/2 1 3/8	12 13 3/4 15 3/4 18 20 22 24 27 1/4	.....	2 2 2 2 2 4 4	3/4 3/4 3/4 3/4 3/4 5/8 5/8
1/8 & 1/4	4.50 5.00 5.75 6.50 7.50	6-8 10-12 14-16 18-20 22-24	5	13 14 3/4 17 19 23 1/2	4 1/8 4 1/8 4 7/8 5 5	1 1/8 1 1/8 1 1/8 1 1/8 1 1/8	9 1/2 10 3/4 13 1/4 15 1/4 19 1/4	.....	2 2 2 2 2	5/8 5/8 5/8 5/8 5/8	2 1/16	9.75 10.50 11.50 12.25 13.25 15.00 17.00 20.00	6 1/2-7 1/2 10-12 14-16 18-20 22-24 26-28 30-32 34-36	10	15 18 1/2 20 1/4 22 1/2 24 1/2 26 1/2 29 32	5 1/4 5 1/2 5 3/4 6 6 1/4 7 1/2 8	1 1/2 1 1/4 1 1/4 1 1/4 1 1/4 1 1/2 1 3/8	12 13 3/4 15 3/4 18 20 22 24 27 1/4	.....	2 2 2 2 2 4 4	3/4 3/4 3/4 3/4 3/4 5/8 5/8
1/4 & 1/2	5.00 5.50 6.25 7.00 8.00	6-8 10-12 14-16 18-20 22-24	6	13 14 3/4 17 19 23 1/2	4 1/8 4 1/8 4 7/8 5 5	1 1/8 1 1/8 1 1/8 1 1/8 1 1/8	9 1/2 10 3/4 13 1/4 15 1/4 19 1/4	.....	2 2 2 2 2	5/8 5/8 5/8 5/8 5/8	2 1/16	9.75 10.50 11.50 12.25 13.25 15.00 17.00 20.00	6 1/2-7 1/2 10-12 14-16 18-20 22-24 26-28 30-32 34-36	10	15 18 1/2 20 1/4 22 1/2 24 1/2 26 1/2 29 32	5 1/4 5 1/2 5 3/4 6 6 1/4 7 1/2 8	1 1/2 1 1/4 1 1/4 1 1/4 1 1/4 1 1/2 1 3/8	12 13 3/4 15 3/4 18 20 22 24 27 1/4	.....	2 2 2 2 2 4 4	3/4 3/4 3/4 3/4 3/4 5/8 5/8
1/2 & 3/4	6.00 6.50 7.25 8.50 10.75 13.75 16.00	6-8 10-12 14-16 18-20 22-24 26-28 30-32 34-36	7	14 1/4 16 1/2 18 20 22 23 3/4 29 31 5/8	4 1/2 4 1/2 4 1/2 5 5 1/4 6 1/2 7 1/4 7 1/2	1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 3/8	10 1/4 12 1/4 13 3/4 15 3/4 18 1/2 19 1/2 24 1/4 27	.....	2 2 2 2 2 2 2 2	5/8 5/8 5/8 5/8 5/8 3/4 3/4 3/4	2 1/16	11.50 13.50 15.00 17.00 18.50 20.00 23.00 26.00	6 1/2-7 1/2 10-12 14-16 18-20 22-24 26-28 30-32 34-36	11	17 18 3/4 21 23 25 1/4 27 33 1/2 33 1/4	6 6 1/2 7 7 7 7 8 1/2 8 3/4	1 5/8 1 1/2 1 1/2 1 1/2 1 1/2 1 1/2 1 1/2 1 5/8	13 3/4 14 16 1/4 18 3/8 20 1/4 22 1/4 27 27 1/2	.....	2 2 2 2 2 2 4 4 1/2	7/8 1 1 1 1 1 1 3/4
3/4 & 1	7.00 7.50 8.25 9.50 11.75 14.00 16.50	6-8 10-12 14-16 18-20 22-24 26-28 30-32 34-36	8	14 1/4 16 1/2 18 20 22 23 3/4 29 31 5/8	4 1/2 4 1/2 4 1/2 5 5 1/4 6 1/2 7 1/4 7 1/2	1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 3/8	10 1/4 12 1/4 13 3/4 15 3/4 18 1/2 19 1/2 24 1/4 27	.....	2 2 2 2 2 2 2 2	5/8 5/8 5/8 5/8 5/8 3/4 3/4 3/4	2 1/16	13.50 15.50 17.00 19.00 20.50 22.00 25.00 28.00	6 1/2-7 1/2 10-12 14-16 18-20 22-24 26-28 30-32 34-36	12	17 18 3/4 21 23 25 1/4 27 33 1/2 33 1/4	6 6 1/2 7 7 7 7 8 1/2 8 3/4	1 5/8 1 1/2 1 1/2 1 1/2 1 1/2 1 1/2 1 1/2 1 5/8	13 3/4 14 16 1/4 18 3/8 20 1/4 22 1/4 27 27 1/2	.....	2 2 2 2 2 2 4 4	7/8 1 1 1 1 1 1 3/4

PRICE

(Line Continued on Following Page)

LIST NET



**UNIVERSAL ADJUSTMENT B. & S. DROP HANGERS—Continued**

Shaft Size	List Each	Drop A	B	Base C	D	Bolt Holes E	F	Bolts—No.	Size	Shaft Size	List Each	Drop A	B	Base C	D	Bolt Holes E	F	Bolts—No.	Size
	\$22.50	7½-8¼	19½	6½	1¾	15½	...	2	1		\$19.00	7½-8¼	19½	6½	1¾	15½	...	2	1
	\$23.00	9-11	21½	7	2	16	...	2	1		\$19.50	9-11	21½	7	2	16	...	2	1
	\$24.00	11-13	22	7	2	16½	...	2	1		\$20.50	11-13	22	7	2	16½	...	2	1
	\$25.50	13-15	22¾	7¼	2	18	...	2	1		\$22.00	13-15	22¾	7¼	2	18	...	2	1
	\$26.50	15-17	23¾	7¼	2	18½	3¾	4	7/8		\$23.00	15-17	23¾	7¼	2	18½	3¾	4	7/8
3⅝	\$28.00	17-19	24½	7¼	2	19¼	3¾	4	7/8		\$24.50	17-19	24½	7¼	2	19¼	3¾	4	7/8
	\$29.00	19-21	27¼	8	2	22¾	4¼	4	7/8		\$25.50	19-21	27¾	8	2	22¾	4¼	4	7/8
	\$30.00	23-25	29¼	8	2	24	4¼	4	7/8		\$26.50	23-25	29¼	8	2	24	4¼	4	7/8
	\$32.00	26-28	30½	9	1¾	25	3½	4	¾		\$28.50	26-28	30½	9	1¾	25	3½	4	¾
	\$34.00	29-31	32	9	2	26½	5	4	7/8		\$30.50	29-31	32	9	2	26½	5	4	7/8
	\$37.00	34-36	34	10½	1¾	28½	4¾	4	¾		\$33.50	34-36	34	10½	1¾	28½	4¾	4	¾
	\$24.50	7½-8¼	19½	6½	1¾	15½	...	2	1		\$21.00	7½-8¼	19½	6½	1¾	15½	...	2	1
	\$25.00	9-11	21½	7	2	16	...	2	1		\$21.50	9-11	21½	7	2	16	...	2	1
	\$26.00	11-13	22	7	2	16½	...	2	1		\$22.50	11-13	22	7	2	16½	...	2	1
	\$27.50	13-15	22¾	7¼	2	18	...	2	1		\$24.00	13-15	22¾	7¼	2	18	...	2	1
	\$28.50	15-17	23¾	7¼	2	18½	3¾	4	7/8		\$25.00	15-17	23¾	7¼	2	18½	3¾	4	7/8
3⅝	\$30.00	17-19	24½	7¼	2	19¼	3¾	4	7/8		\$26.50	17-19	24½	7¼	2	19¼	3¾	4	7/8
	\$31.00	19-21	27¼	8	2	22¾	4¼	4	7/8		\$27.50	19-21	27¾	8	2	22¾	4¼	4	7/8
	\$32.00	23-25	29¼	8	2	24	4¼	4	7/8		\$28.50	23-25	29¼	8	2	24	4¼	4	7/8
	\$34.00	26-28	30½	9	1¾	25	3½	4	¾		\$30.50	26-28	30½	9	1¾	25	3½	4	¾
	\$36.00	29-31	32	9	2	26½	5	4	7/8		\$32.50	29-31	32	9	2	26½	5	4	7/8
	\$39.00	34-36	34	10½	1¾	28½	4¾	4	¾		\$35.50	34-36	34	10½	1¾	28½	4¾	4	¾

**PRICE****LIST NET****DROP HANGER FRAMES ONLY****For Universal Adjustment Ball and Socket Hangers**

Shaft Size	Drop A	LIST EACH	Shaft Size	Drop A	LIST EACH	Shaft Size	Drop A	LIST EACH	Shaft Size	Drop A	LIST EACH
1½ & 1	6-8	\$1.75	1½, 1¾	14-16	\$4.50	2¾ & 2⅝	26-28	\$9.75	3¾, 3⅝, 7½-8¼	9-11	\$10.00
	10-12	\$2.25	1½ & 2	18-20	\$5.00		30-32	\$11.75	3¾ & 3⅝	11-13	\$11.50
	14-16	\$3.00		22-24	\$5.75		34-36	\$14.75		13-15	\$13.00
				26-28	\$8.00					15-17	\$14.00
1¾, 1½, 1¼	6-8	\$2.50		30-32	\$9.75	2½ & 2⅝	6¾-7½	\$5.50		17-19	\$15.50
1¾ & 1½	10-12	\$3.00		34-36	\$11.75		10-12	\$7.50		19-21	\$16.50
	14-16	\$3.75					14-16	\$9.00		23-25	\$17.50
	18-20	\$4.50	2¾ & 2⅝	6½-7½	\$4.50		18-20	\$11.00		26-28	\$19.50
	22-24	\$5.50		10-12	\$5.25		22-24	\$12.50		29-31	\$21.50
				14-16	\$6.25		26-28	\$14.00		34-36	\$24.50
1½, 1¾	6-8	\$3.25		18-20	\$7.00		30-32	\$17.00			
1½ & 2	10-12	\$3.75		22-24	\$8.00		34-36	\$20.00			

**PRICE****LIST NET****DUPLEX RING OILING HANGER BOXES ONLY**

For use with Universal Drop Hangers, Bracket Hangers, Post Hangers, or Pillow Blocks. They are babbitted, accurately bored, and faced on both ends. Extra large oil reservoir. Two oil rings and a wool felt wick with capillary and ring oiling assure constant lubrication.

Size of Shaft	Length of Box	LIST EACH	Size of Shaft	Length of Box	LIST EACH	Size of Shaft	Length of Box	LIST EACH	Size of Shaft	Length of Box	LIST EACH
1½ & 1	4¼	\$1.75	1½ & 2	8	\$3.75	2½	11	\$6.00	3¾	14	\$11.00
1¾ & 1¼	5	\$2.00		9	\$4.25	2⅝	12	\$8.00	3⅝	15	\$12.50
1¾ & 1½	6	\$2.50	2⅝	10	\$5.25	3⅝	13	\$9.00	3⅝	16	\$14.50
1½ & 1¾	7	\$2.75									

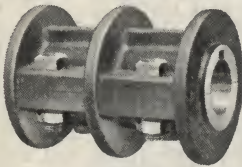
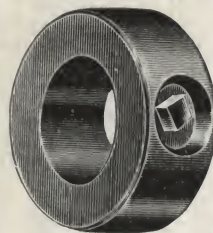
**PRICE****LIST NET****RIBBED COUPLINGS**

Fig. 619

Exceptionally strong. Bolts are protected by flanges. Square key is fitted.

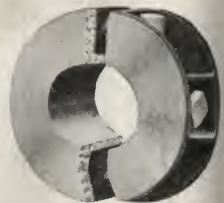
Shaft Size	Diam. Inch	Length Inch	LIST EACH
1¾	3¼	5½	\$3.05
1½	4½	6	\$4.20
1½	4½	6	\$6.30
1½	5½	7½	\$7.40
2¾	5½	7½	\$9.00
2¾	6½	9¼	\$10.00
2¾	6½	9¼	\$11.00
2¾	7½	11	\$13.00
3¾	7½	11	\$16.50
3¾	8½	13	\$20.00
3¾	9½	16	\$28.00

**PRICE**Solid  
Fig. No. 621

Size In.	List Solid	List Split
1½	\$0.65	\$0.95
1	.65	.95
1¾	.80	1.20
1¼	.80	1.20
1¾	1.00	1.50
1½	1.00	1.50
1½	1.20	1.80
1¾	1.20	1.80

**DISCOUNT****SAFETY SET COLLARS—Solid and Split**

Made solid and split for all sizes of shafting. Collars comply with all the legal requirements as to safety by having set screws and bolts protected. Finished and polished on periphery and faced on ends, accurately bored and reamed, and substantial throughout. A strictly high grade machine and shafting collar.

Split  
Fig. No. 622

Size In.	List Solid	List Split	Size In.	List Solid	List Split
1½	\$1.40	\$2.10	3¾	\$3.00	\$4.50
1	1.40	2.10	3¼	3.30	4.95
2¾	1.60	2.40	3⅝	3.60	5.40
2¾	1.80	2.70	4¾	4.15	6.25
2½	2.10	3.15	4¾	4.70	7.05
2½	2.40	3.60	4¾	5.30	7.95
3¾	2.70	4.05	4½	5.90	8.85

**45% OFF**



## UNIVERSAL POST HANGERS

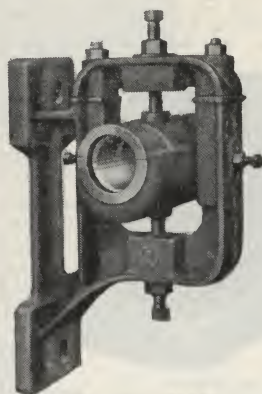
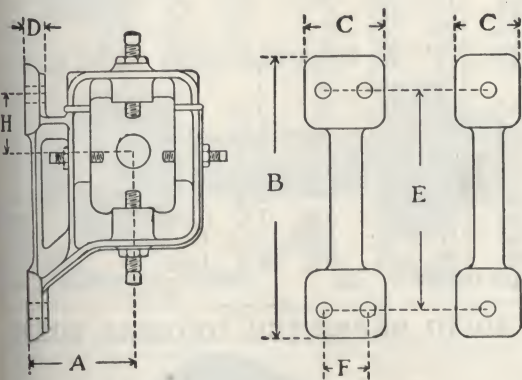


Fig. No. 2503

With duplex self oiling bearings. Particularly desirable where short extension from wall is wanted.



Detail of Post Hanger. Dimensions in Inches

Size of Shaft	A	B	C	D	E	F	H	Bolts	
								No.	Size
1/16	6	13 7/8	4	1 3/16	10 3/4	...	2 1/2	2	1/2
1/8	6	13 7/8	4	1 3/16	10 3/4	...	2 1/2	2	1/2
1/4	6	13 7/8	4	1 3/16	10 3/4	...	2 1/2	2	1/2
3/8	6	13 7/8	4	1 3/16	10 3/4	...	2 1/2	2	1/2
1/2	6	13 7/8	4	1 3/16	10 3/4	...	2 1/2	2	1/2
3/4	6 1/2	15 7/8	4 3/4	1 3/8	12 1/2	...	3 1/4	2	5/8
1 1/4	6 1/2	15 7/8	4 3/4	1 3/8	12 1/2	...	3 1/4	2	5/8
1 1/2	6 1/2	15 7/8	4 3/4	1 3/8	12 1/2	...	3 1/4	2	5/8
2	6 1/2	15 7/8	4 3/4	1 3/8	12 1/2	...	3 1/4	2	5/8
2 1/2	7 1/2	18 1/4	5 1/4	1 7/16	15	...	3 5/8	2	3/4
2 3/4	7 1/2	18 1/4	5 1/4	1 7/16	15	...	3 5/8	2	3/4
3	8 1/2	20 3/4	6	1 11/16	16 1/2	...	4 1/4	2	7/8
3 1/4	8 1/2	20 3/4	6	1 11/16	16 1/2	...	4 1/4	2	7/8
3 1/2	10	22	6 1/2	1 7/8	17	3 1/2	4 5/8	4	7/8
3 3/4	10	22	6 1/2	1 7/8	17	3 1/2	4 5/8	4	7/8
4	10	22	6 1/2	1 7/8	17	3 1/2	4 5/8	4	7/8
4 1/2	10	22	6	1 7/8	17	3 1/2	4 5/8	4	7/8

## LIST PRICES

Shaft Size Inches	List Hanger Complete	List Frame Only	Shaft Size Inches	List Hanger Complete	List Frame Only
1/16	\$4.75	\$2.75	2 3/16	\$ 9.25	\$ 5.00
1/8	\$4.75	\$2.75	2 7/16	\$10.25	\$ 5.00
1/4	\$5.25	\$2.75	2 11/16	\$13.50	\$ 7.50
3/8	\$5.25	\$2.75	2 15/16	\$15.50	\$ 7.50
1/2	\$6.00	\$3.25	3 3/16	\$20.00	\$11.00
3/4	\$6.00	\$3.25	3 7/16	\$22.00	\$11.00
1	\$7.00	\$3.25	3 11/16	\$23.50	\$11.00
1 1/4	\$7.00	\$3.25	3 15/16	\$25.50	\$11.00

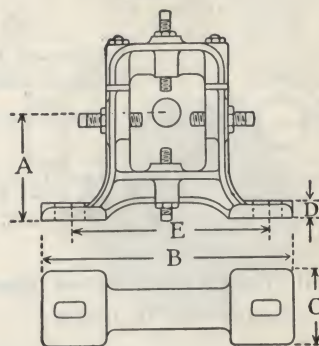
## UNIVERSAL ADJUSTMENT BALL AND SOCKET PILLOW BLOCKS



Fig. No. 2504

A well balanced frame with duplex self oiling bearing. Holes in base are slotted so as to allow for extra lateral adjustment.

Intermediate sizes take next higher list.



Detail of Adjustable Pillow Blocks

Dimensions in Inches

Size of Shaft, Inches	A	B	C	D	E	Bolts	
						No.	Size
1 3/16	5 3/4	11 1/2	3 3/4	1 1/4	9	2	1/2
1 1/4	5 3/4	11 1/2	3 3/4	1 1/4	9	2	1/2
1 1/2	5 3/4	11 1/2	3 3/4	1 1/4	9	2	1/2
1 3/4	5 3/4	11 1/2	3 3/4	1 1/4	9	2	1/2
2	6 1/2	13	4 3/4	1 3/8	10 1/2	2	5/8
2 1/4	6 1/2	13	4 3/4	1 3/8	10 1/2	2	5/8
2 1/2	6 1/2	13	4 3/4	1 3/8	10 1/2	2	5/8
2 3/4	6 1/2	13	4 3/4	1 3/8	10 1/2	2	5/8
3	7 1/2	15	5 1/4	1 1/2	12	2	3/4
3 1/4	7 1/2	15	5 1/4	1 1/2	12	2	3/4
3 1/2	8	17	6	1 5/8	13 3/4	2	7/8
3 3/4	8	17	6	1 5/8	13 3/4	2	7/8
4	9	19 1/2	6 1/2	1 3/4	15 1/2	2	1
4 1/4	9	19 1/2	6 1/2	1 3/4	15 1/2	2	1
4 1/2	9	19 1/2	6	1 3/4	15 1/2	2	1
4 3/4	9	19 1/2	6	1 3/4	15 1/2	2	1

## LIST PRICES

Shaft Size Inches	List Pillow Block Complete	List Each Frame Only	Shaft Size Inches	List Pillow Block Complete	List Each Frame Only
1 3/16	\$4.50	\$2.50	2 3/16	\$ 8.75	\$4.50
1 1/4	\$4.50	\$2.50	2 7/16	\$ 9.75	\$4.50
1 1/2	\$5.00	\$2.50	2 11/16	\$11.50	\$5.50
1 3/4	\$5.00	\$2.50	2 15/16	\$13.50	\$5.50
2	\$6.00	\$3.25	3 3/16	\$19.00	\$10.00
2 1/4	\$6.00	\$3.25	3 7/16	\$21.00	\$10.00
2 1/2	\$7.00	\$3.25	3 11/16	\$22.50	\$10.00
2 3/4	\$7.00	\$3.25	3 15/16	\$24.50	\$10.00

PRICE

NET



DUPLEX OILING RIGID PILLOW BLOCKS

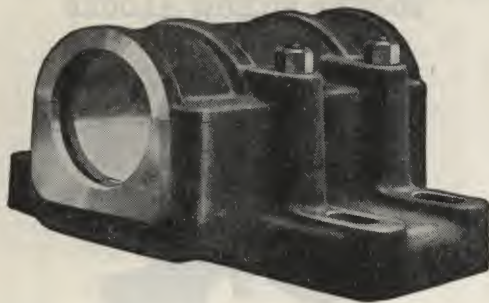
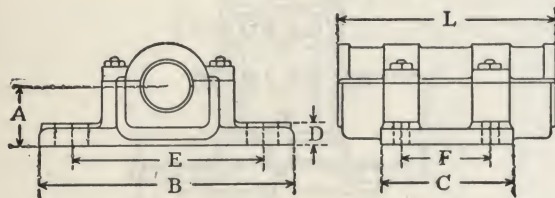


Fig. 2507

A pillow block of exceptional strength and design, carrying the duplex (combination ring and capillary) oiling features—the most efficient oiling system known. A better appliance of the standard rigid type has never been made. All bearings are babbitted and bored accurately to proper size for shaft, ends are faced and bases finished. The slotted holes in base provide for lateral adjustment.



Detail Duplex Rigid Pillow Block  
Dimensions in Inches

Size of Shaft	A	B	C	D	E	F	L	Bolts
								No. Size
1 3/16	1 3/4	6 1/2	3	3/4	5	...	5	2 1 1/2
1 1/4	1 3/4	6 1/2	3	3/4	5	...	5	2 1 1/2
1 7/16	2 1/8	7 1/2	3 3/8	7/8	5 3/4	...	5 3/4	2 5/8
1 1/2	2 1/8	7 1/2	3 3/8	7/8	5 3/4	...	5 3/4	2 5/8
1 11/16	2 3/8	8 1/8	3 3/4	1	6 1/4	...	6 1/2	2 5/8
1 3/4	2 1/4	8 1/8	3 3/8	1	6 1/2	...	6 1/2	2 5/8
1 15/16	2 3/8	8 3/4	3 3/4	1 1/8	6 5/8	...	7 1/4	2 3/4
2	2 3/8	8 3/4	3 3/4	1 1/8	6 5/8	...	7 1/4	2 3/4
2 3/16	2 5/8	9 3/4	4 1/4	1 1/4	7 1/2	...	8	2 3/4
2 1/2	2 5/8	10 3/4	4 5/8	1 3/8	8 1/4	...	8 3/4	2 3/4
2 11/16	2 3/4	11 3/4	5 5/8	1 1/2	9 1/4	...	10	2 7/8
2 15/16	3 1/2	12 5/8	5 1/2	1 5/8	10 1/8	...	10 3/4	2 7/8
3	3 3/4	13 1/2	6 1/8	1 3/4	10 3/4	...	11 1/2	2 7/8
3 1/16	4	14 1/4	6 3/8	1 7/8	11 3/8	...	12 1/4	2 1
3 1/8	4 3/8	15 1/4	6 7/8	2	12 1/4	4 1/2	13 1/4	4 3/4
3 1/2	4 3/4	16 1/4	7 1/4	2 1/4	13	4 7/8	14 1/4	4 3/4
4 3/16	5 3/4	18	8	2 3/8	13 7/8	5 3/8	15 3/4	4 7/8
4 1/2	5 1/4	18	8	2 3/8	13 7/8	5 3/8	15 3/4	4 7/8
4 11/16	6	19 3/4	8 3/4	2 1/2	15 1/8	6	17 1/4	4 1
4 15/16	6	19 3/4	8 3/4	2 1/2	15 1/8	6	17 1/4	4 1
5 1/16	6 5/8	21 7/8	9 5/8	2 5/8	17	6 1/2	18 1/4	4 1
5 1/8	7 1/4	24	10 3/8	3 1/4	19 3/8	7	20 1/4	4 1 1/8
5 1/2	7 5/8	25 3/4	11 3/4	3 1/4	20 3/8	8	22 1/2	4 1 1/8
6	8 1/4	27 1/2	13	3 1/2	22	9	24	4 1 1/4

Shaft Size, Inches	LIST EACH	Shaft Size, Inches	LIST EACH	Shaft Size, Inches	LIST EACH
1 3/16	\$4.50	2 3/16	\$8.20	4 3/16	\$37.00
1 1/4	\$4.50	2 1/2	\$9.80	4 7/16	\$42.00
1 7/16	\$5.00	2 11/16	\$12.00	4 11/16	\$50.00
1 1/2	\$5.00	2 15/16	\$14.00	4 15/16	\$54.00
1 11/16	\$5.70	3 1/16	\$18.00	5 1/16	\$66.00
1 3/4	\$5.70	3 1/8	\$22.00	5 1/8	\$80.00
1 15/16	\$6.80	3 1/2	\$27.00	6 1/2	\$94.00
2	\$6.80	3 15/16	\$32.00	7	\$108.00

DISCOUNT ..... 15-5% OFF

COMMON FLAT BOXES

Babbitted bearings, broached: For use in light medium service or where space on shafting is limited. The caps are tapped to permit the use of grease cup. Slotted holes in the base provide for lateral adjustment.

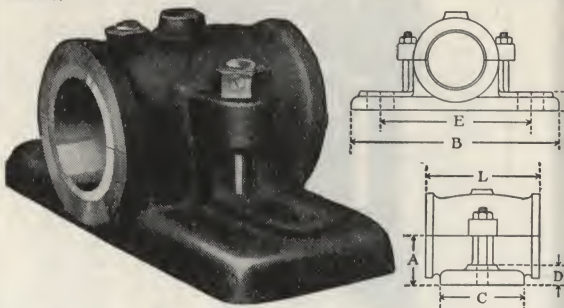


Fig. 2508

Shaft Size	A	B	C	D	E	L	2 Bolts	List Each
1 5/16	1 1/8	6 1/16	2	9/16	4 5/8	2	3/8	\$1.0
1	1 1/8	6 1/16	2	9/16	4 5/8	2	3/8	\$1.0
1 3/16	1 1/4	6 3/16	2 1/4	5/8	5 3/16	2 1/2	1/2	\$1.3
1 1/4	1 1/4	6 3/16	2 1/4	5/8	5 3/16	2 1/2	1/2	\$1.3
1 7/16	1 1/2	7 1/2	2 5/8	3/4	5 1/2	3	1/2	\$1.6
1 1/2	1 1/2	7 1/2	2 5/8	3/4	5 1/2	3	1/2	\$1.6
1 11/16	1 11/16	8 1/4	3	7/8	6 5/16	3 1/2	1/2	\$2.2
1 3/4	1 11/16	8 1/4	3	7/8	6 5/16	3 1/2	1/2	\$2.2
1 15/16	1 7/8	8 15/16	3 3/8	1	6 7/8	4	5/8	\$2.9
2	1 7/8	8 15/16	3 3/8	1	6 7/8	4	5/8	\$2.9
2 3/16	2 1/8	9 5/8	3 3/4	1 1/8	7 7/16	4 1/2	5/8	\$3.7
2 1/2	2 5/8	10 5/8	4 1/8	1 3/8	8 1/2	5	5/8	\$4.2
2 11/16	2 1/2	10 7/8	4 3/8	1 1/4	8 7/16	5 1/2	3/4	\$5.4
2 15/16	2 11/16	11 3/4	4 3/4	1 3/8	9 1/16	6	3/4	\$6.5
3	2 7/8	12 1/2	5	1 7/8	9 1/2	6 1/2	7/8	\$9.5
3 1/16	3 1/8	13 5/16	5 1/4	1 15/16	10 17/32	7	1	\$10.0
3 1/8	3 1/4	14 1/8	5 7/8	1 15/16	11 3/32	7 1/2	1	\$13.0
3 1/2	3 1/2	14 15/16	6 1/4	1 3/4	11 1/16	8	1 1/8	\$16.5

DISCOUNT ..... 15-5% OFF

SOLID BABBITTED JOURNAL BOXES

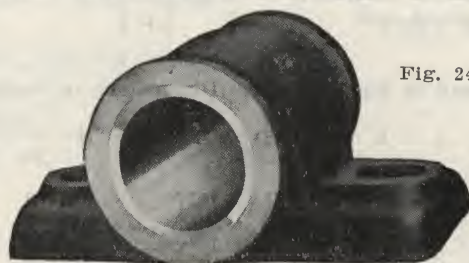
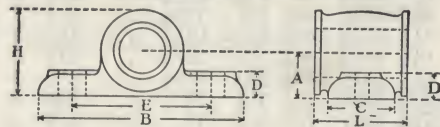


Fig. 2452



Shaft Size	A	B	C	D	E	H	L	2 Bolts	List Each
1 5/16	1	4 1/2	1 3/8	5/8	3	1 7/8	2	3/8	\$0.9
1	1	4 1/2	1 3/8	5/8	3	1 7/8	2	3/8	\$0.9
1 3/16	1 3/16	5 1/8	1 3/4	3/4	3 5/8	2 3/16	2 1/2	3/8	\$1.2
1 1/4	1 3/16	5 1/8	1 3/4	3/4	3 5/8	2 3/16	2 1/2	3/8	\$1.2
1 7/16	1 3/8	5 7/8	2 1/8	13/16	4	2 9/16	3	1/2	\$1.5
1 1/2	1 3/8	5 7/8	2 1/8	13/16	4	2 9/16	3	1/2	\$1.5
1 11/16	1 11/16	6 1/2	2 3/8	7/8	4 1/2	2 7/8	3 1/2	1/2	\$1.8
1 3/4	1 11/16	6 1/2	2 3/8	7/8	4 1/2	2 7/8	3 1/2	1/2	\$1.8
1 15/16	1 3/4	7 1/8	2 3/4	1	5	3 1/4	4	5/8	\$2.1
2	1 3/4	7 1/8	2 3/4	1	5	3 1/4	4	5/8	\$2.1
2 3/16	1 5/8	7 7/8	3	1 1/8	5 5/8	3 5/8	4 1/2	5/8	\$2.7
2 1/2	2 1/8	8 1/2	3 3/8	1 3/8	6	3 15/16	5	3/4	\$3.2
2 11/16	2 1/2	9 1/8	3 5/8	1 5/8	6 1/2	4 1/4	5 1/2	3/4	\$3.6
2 15/16	2 11/16	9 7/8	4	1 3/8	6 7/8	4 5/8	6	3/4	\$4.8
3	2 11/16	10 1/2	4 1/4	1 7/8	7 3/8	5	6 1/2	7/8	\$5.9
3 1/16	2 7/8	11 1/4	4 5/8	1 11/8	8	5 5/16	7	7/8	\$7.0
3 1/8	3 1/16	11 7/8	5	1 5/8	8 1/2	5 11/16	7 1/2	7/8	\$9.0
3 1/2	3 3/16	12 1/2	5 1/4	1 5/8	8 7/8	6 1/8	8	7/8	\$11.0

DISCOUNT ..... 15-5% OFF



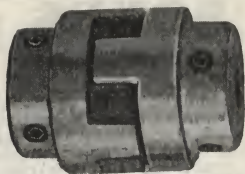
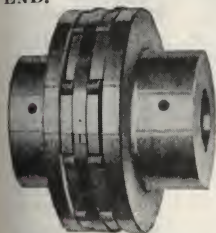


Fig. 4217. (Patented)  
Trouble-free flexible couplings that dampens and absorbs shock, vibration, starting torque, and intermittent overloads. It protects both the motor and driven machinery. It makes shaft alignment easy. The spiders or load-cushions that transmit the load are made of material suited to the load conditions. There is no wear on the metal jaws. **SPECIFY BORE SIZE OF EACH END.**

## L-R FLEXIBLE COUPLING

### Trouble-Free! Strong! Economical! Silent!

Size Number	Maximum Bore, Inch	Outside Diameter "A", Inches	Length Overall "B", Inches	Distance between Shafts, Inches	Approx. Weight, Pounds	★NET EACH COUPLING	★NET Extra Spider	★NET Extra for Key-Seating
1A-050	1/2	1-3/32	1-5/8	1/2	1/4	\$0.60	\$0.20	\$0.10
1A-050X	1/2	1-3/32	2-3/8	1/2	3/8	\$0.70	\$0.20	\$0.10
1A-050XX	1/2	1-3/32	3-3/8	1/2	1/2	\$0.80	\$0.20	\$0.10
1A-070	5/8	1-3/8	1-15/16	1/2	1/2	\$1.00	\$0.30	\$0.10
1A-085	3/4	1-3/4	2-1/16	1/2	1-1/4	\$1.80	\$0.60	\$0.10
1A-090	3/4	2-1/8	2-1/4	1/2	1-1/2	\$2.00	\$0.80	\$0.20
1A-095	7/8	2-1/8	2-1/2	1/2	1-3/4	\$3.60	\$0.80	\$0.20
1A-100	1-1/4	2-9/16	3-3/16	5/8	2-1/2	\$4.50	\$1.50	\$0.20
1A-150	1-5/8	3-3/4	4-1/4	1	6	\$7.50	\$3.00	\$0.50
1A-190	2	4-1/2	5-1/4	1	15	\$11.00	\$6.00	\$0.50
1A-225	2-1/4	5	6	1	21	\$19.50	\$6.00	\$1.00
1A-275	2-3/4	6-1/4	7-5/8	1-1/8	40	\$29.25	\$8.00	\$1.00



#### TYPE W.

Made with individual load cushions. One bore may be larger than the other and the two figures show the maximum for both bodies.

W-280	W-285	W-295	W-300	W-350	W-400	W-450	W-500	W-600	W-700	W-800	W-900
2-3/4x3-1/8	2-7/8x3-1/4	3-1/4x4	3-1/2x4-1/4	3-3/4x4-5/8	4-1/4x5	4-3/4x5-1/2	5-1/4x6	6-1/2x7	7-3/8x8	8-3/8x9	9-1/8x10
7-1/4	8-1/4	9-1/4	10-1/2	11-3/4	13	14	15	17-1/2	20	24	27
7	7-3/4	8-5/8	9-3/8	9-7/8	11-5/8	12-5/8	14-1/4	16-7/8	18-7/8	22-1/8	25-3/8
1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
50	58	65	85	150	170	210	260	350	600	800	1200
\$37.50	\$41.25	\$45.00	\$48.75	\$57.75	\$67.50	\$86.25	\$120.00	\$165.00	\$206.50	\$300.00	\$472.50
\$1.50	\$1.50	\$1.50	\$2.00	\$2.00	\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$3.50	\$3.50
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.50	\$1.50	\$1.50	\$2.00	\$2.00	\$2.00	\$2.50

## KEYLESS COMPRESSION COUPLING



Fig. 2515

One of the strongest couplings manufactured. Its superior construction insures perfect alignment. No key ways and no special attention need be given to centering of shafts. To assemble, tighten bolts gradually one after the other. For reduction couplings add 20% to next larger size.

Shaft Size	LIST EACH	Shaft Size	LIST EACH
15/16	\$4.25	1 3/4	\$6.25
1	\$4.25	1 15/16	\$8.00
1 1/16	\$4.75	2	\$8.00
1 1/4	\$4.75	2 1/16	\$9.00
1 3/8	\$5.50	2 1/4	\$10.75
1 1/2	\$5.50	2 1/2	\$13.00
1 11/16	\$6.25	2 5/8	\$16.00
PRICE	NET	DISCOUNT	5% OFF

## STANDARD FLANGE COUPLINGS

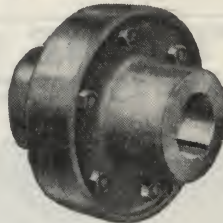


Fig. 618

Finished all over, with bolt holes drilled in accurate drill jigs and reamed to size.

For reduction couplings add 20% to list price of the larger size. All reduction couplings are male and female type. Prices of larger sizes on application.

Shaft Size Inches	List With Keys	List Each Fitted	Shaft Size Inches	List With Keys	List Each Fitted
1 1/16	\$7.50	\$11.25	1 15/16	\$9.00	\$13.50
1 1/4	\$7.50	\$11.25	2	\$9.00	\$13.50
1 3/8	\$8.00	\$12.00	2 1/16	\$10.50	\$15.25
1 1/2	\$8.00	\$12.00	2 1/4	\$12.50	\$17.75
1 11/16	\$8.50	\$12.75	2 1/2	\$15.25	\$21.00
1 3/4	\$8.50	\$12.75	2 5/8	\$18.25	\$24.50
PRICE	NET	DISCOUNT	5% OFF		

## JAW CLUTCH COUPLINGS



Fig. 630. Spiral Jaw, Right Hand

Sizes and specifications cover spiral jaw clutches, both right and left hand, as well as square jaw clutches and include yoke (not shown), but do not include levers. **SPECIFY STYLE WANTED.**

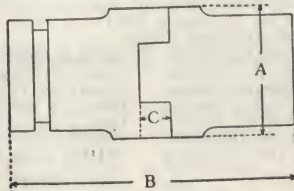


Fig. 629. Square Jaw

Larger sizes, prices and information on application. For reduction couplings, add 20% to list of larger shaft size. For intermediate sizes, use list of next larger listed size.

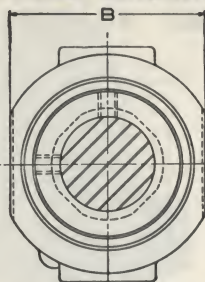
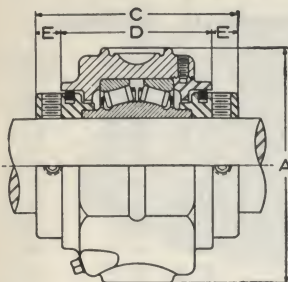
Shaft Size Inches	A	B	C	Approx. Weight, Pounds	List Square Jaw	List Spiral Jaw
1 1/4	4 1/2	8 5/8	1 1/8	28	\$13.50	\$18.75
1 15/16	5	9 3/8	1 1/8	35	\$14.50	\$20.50
2	5	9 3/8	1 1/8	35	\$14.50	\$20.50
2 1/16	5 1/2	10 1/4	1 1/4	46	\$16.00	\$23.50
2 1/4	6	10 7/8	1 3/8	59	\$18.00	\$25.50
2 11/16	6 1/2	11 7/8	1 3/8	71	\$26.00	\$33.75
2 3/4	7	12 3/4	1 1/2	100	\$30.25	\$37.50
PRICE	NET	DISCOUNT	25% OFF			



**SHAFTER****SELF-ALIGNING  
ROLLER BEARING****HANGER BOXES**

Saves 15% to 25% in Power Costs

Fig. 4090



An ideal power transmission bearing. Self-aligning. Compact, rugged and easily installed. Saves 15% to 25% of your power costs, and they generally repay installation costs the first year from power savings alone, this as compared to plain bearings. Lubrication is required but twice a year. They give carefree service for many years. Sizes not listed can be furnished, prices on request.

**NOTE:** Install in four point hanger frames. Hanger frame opening dimensions must not be less than shown in columns to right of "A" and "B", because surfaces are cast and clearance must be provided. Wherever possible, hanger frame openings should be sufficiently larger than minimum height and width dimensions listed below in table to allow for locating adjustments.

Fig. 4090 Model	Shaft Size In.	A	Minimum Height Frame Opening	B	Minimum Width Frame Opening	C	D	E	Net Weight	LIST EACH
HR-015	1 15/16	3 3/8	3 3/16	3	3 1/8	3 3/16	2 1/4	1 5/32	3 3/4	\$10.90
HN-103	1 3/16	3 3/4	4	3 3/8	3 1/2	3 1/16	2 9/16	9/16	5 1/2	\$10.95
HR-107	1 7/16	4 1/8	4 3/8	3 5/16	3 7/16	3 5/8	2 3/16	1 1/2	6 1/2	\$12.80
HR-111	1 11/16	4 3/4	5 1/8	3 3/4	3 5/16	4 1/4	3 3/16	1 7/32	9 1/2	\$15.60
HR-115	1 15/16	4 5/8	5 5/16	4	4 3/16	4 1/4	3 3/16	1 7/32	9 3/4	\$17.40
HL-203	2 3/16	5 3/8	5 5/16	4 7/16	4 11/16	4 5/8	3 7/16	1 9/32	13 1/2	\$22.20
HR-207	2 7/16	6 1/4	6 3/4	4 7/8	5 1/8	4 7/8	3 5/8	2 1/8	19	\$28.20
HR-211	2 11/16	7	7 1/2	6	6 5/16	5 5/8	4 5/16	2 1/32	30	\$37.20
HR-215	2 15/16	7	7 1/2	6	6 5/16	5 5/8	4 5/16	2 1/32	28	\$37.20
HR-303	3 3/16	8	8 5/8	6 3/16	7 3/16	5 7/8	4 9/16	2 1/32	42	\$63.00
HR-307	3 7/16	8	8 5/8	6 3/16	7 3/16	5 7/8	4 9/16	2 1/32	40	\$63.00

**DISCOUNT****25% OFF**

## HYATT LINE SHAFT ROLLER BEARINGS

### SAVE 15 PER CENT OF YOUR TOTAL POWER BILL



Fig. 3345

The design of the box and the bearing have been improved but the original advantages that for nearly forty years have made Hyatt the ideal line shaft bearing, remain the same. The principle upon which the Hyatt bearing is constructed is that of supporting the line shaft on rollers which produce a true rolling motion between the shaft and the box in which the rollers are enclosed. This eliminates at least 50% of the dragging friction that is always present in an ordinary bearing and makes possible a power saving of at least 15%.

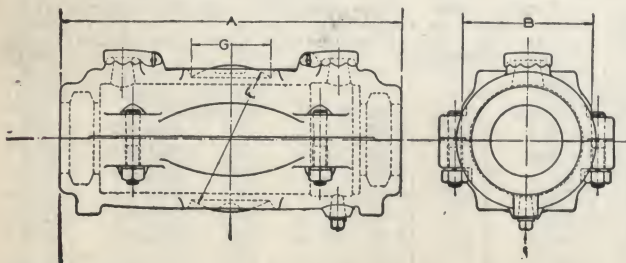
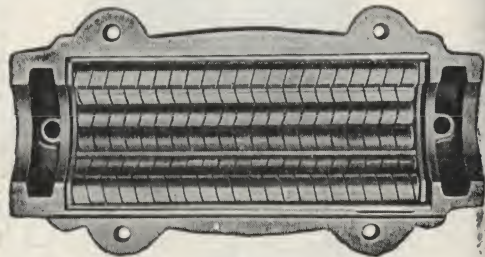
There is nothing in the bearing to get out of order and nothing to cause trouble, breakdowns or delays. Will not run hot. Give good service. Strong steel rollers and are not affected by shock loads, vibration or by other loads within the capacity of the shaft. Easily erected on any shafting or on the majority of lines already in use. Any millwright can apply the bearing

successfully. Rollers are slightly flexible which takes care of irregularities in the surface of the shaft as well as all shaft distortions caused by belt pull or misalignment of shafting. This flexibility insures full line contact at all times and avoids local overloading and possible wear. Self lubricating, no oil leakage and lubrication four times a year is usually sufficient.

**REDUCES MAINTENANCE COSTS** by virtue of the distinctive helically wound Hyatt roller which decreases the number of lubrications.

**EASILY INSTALLED** because the Hyatt bearing is complete split and can be applied without taking down pulleys, collars, clutches, or other shaft fittings.

**LONG LIFE** on account of the design. Bearings installed over twenty-five years ago are saving power and maintenance dollars today.



FRAMES FOR HYATT BEARINGS SHOWN ON PAGE 92.

Shaft Size	Dimensions of Bearing				LIST EACH
	A	B	F	G	
1 7/16	8 1/4	3 5/16	3 5/8	1 7/8	\$ 8.70
1 11/16	9 1/4	3 5/8	3 7/8	1 5/16	10.40
1 15/16	10 1/2	4	4 1/2	2 1/2	12.80
2 3/16	11 1/2	4 1/4	4 7/8	2 1/2	14.30
2 7/16	13	5	5 5/8	3	18.60
2 11/16	14	5 3/8	5 7/8	3	22.40
2 15/16	15 1/4	5 7/8	6 1/4	3 1/2	25.50
3 3/16	16 1/2	6 1/8	6 7/8	3 1/2	26.20
3 7/16	17 1/4	7 1/8	7 1/2	3 3/4	53.70
3 15/16	20	8 3/4	10 3/4	4 5/8	117.50
4 7/16	22 1/4	9 3/8	10 3/4	5 1/2	140.70
4 15/16	24 1/2	10	12 1/4	6 3/8	164.50

PRICE ..... LIST NET



# SHAFTER SELF-ALIGNING ROLLER BEARING UNITS

**Saves 15% To 25% in Power Costs Over Plain Type Bearings**

Concave rollers, convex raceways. Provided with complete and automatic self-alignment. Full bearing areas and free-rolling action are maintained even in the presence of shaft deflection or misalignment of the housing. Practically frictionless.

Double row bearing is used to provide ample capacity for both thrust and radial loads. Thrust loads may be applied in either direction. Normal duty units have labyrinth grease seals. Standard duty units have piston ring grease seals.

## NORMAL DUTY PILLOW BLOCKS, Roller Bearing



Normal Duty Illustrated

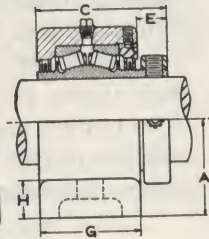


Fig. 4313  
Normal Duty

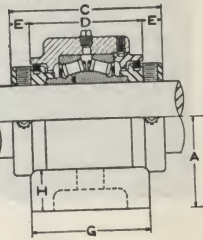
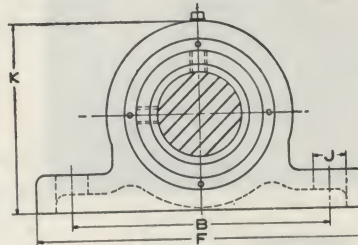


Fig. 4091  
Standard Duty

Model	Shaft Size In.	A	B	C	E	F	G	H	J	K	No. Bolts Req'd	Lbs. Net Wt.	LIST EACH
A-015	15/16	1 9/16	4 3/8	2 9/16	9 9/16	5 7/8	2	5 5/8	13 1/16	3 1/16	2-1 1/2	4 1/2	\$ 9.00
A-100	1	1 9/16	4 3/8	2 9/16	9 9/16	5 7/8	2	5 5/8	13 1/16	3 1/16	2-1 1/2	4 1/2	\$ 9.00
AN-103	1 3/16	1 3/4	4 3/4	2 11/16	9 9/16	6 5/8	2 1/8	5 11/16	13 1/16	3 7/16	2-1 1/2	6 1/4	\$10.00
AN-104	1 1/4	1 3/4	4 3/4	2 11/16	9 9/16	6 5/8	2 1/8	5 11/16	13 1/16	3 7/16	2-1 1/2	6 1/4	\$10.00
A-107	1 1/16	1 7/8	5	2 7/8	11 1/16	6 9/16	2 3/8	5 3/4	13 1/16	3 11/16	2-1 1/2	6 1/2	\$11.50
A-108	1 1/2	1 7/8	5	2 7/8	11 1/16	6 9/16	2 3/8	5 3/4	13 1/16	3 11/16	2-1 1/2	6 1/2	\$11.50
A-111	1 1/16	2 1/8	5 1/2	3 1/8	11 1/16	7 1/8	2 7/16	5 15/16	13 1/16	4 3/16	2-1 1/2	9	\$13.50
A-115	1 15/16	2 1/4	6 1/4	3 1/8	11 1/16	8 1/8	2 7/16	5 7/8	13 1/16	4 7/16	2-5/8	10	\$15.50
A-200	2	2 1/4	6 1/4	3 1/8	11 1/16	8 1/8	2 7/16	5 7/8	13 1/16	4 7/16	2-5/8	10	\$15.50
AL-203	2 3/16	2 1/2	6 3/4	3 5/8	13 1/16	8 5/8	2 1/2	1	15 1/16	4 15/16	2-5/8	13	\$20.00
A-207	2 7/16	2 3/4	7 1/8	3 1/2	13 1/16	9 1/8	2 5/8	1	15 1/16	5 1/16	2-5/8	15 1/2	\$24.00
A-208	2 1/2	2 3/4	7 1/8	3 1/2	13 1/16	9 1/8	2 5/8	1	15 1/16	5 1/16	2-5/8	15 1/2	\$24.00
A-211	2 1/16	3 1/4	8 1/8	4	15 1/16	10 3/8	3 1/8	1 1/8	1 1/16	6 3/8	2-3/4	25 1/2	\$30.00
A-215	2 5/16	3 1/4	8 1/8	4	15 1/16	10 3/8	3 1/8	1 1/8	1 1/16	6 3/8	2-3/4	24	\$30.00
A-300	3	3 1/4	8 1/8	4	17 1/8	10 3/8	3 1/8	1 1/8	1 1/16	6 3/8	2-3/4	24	\$30.00

## STANDARD DUTY PILLOW BLOCKS, Roller Bearing

Fig. 4091 Model	Shaft Size, Inches	A	B	C	D	E	F	G	H	I	J	K	No. Bolts Req'd	Net Wt. Lbs.	LIST EACH
PR-015	15/16	1 5/8	4 1/2	3 3/16	2 1/4	15 3/32	6	2 1/8	3/4		1 1/16	3 1/8	2-1 1/2	5 3/4	\$10.50
PN-103	1 3/16	2	5 1/4	3 9/16	2 3/8	1 1/2	7 1/4	2 3/16	7/8		1	3 23/32	2-1 1/2	8	\$11.50
PR-107	1 7/16	2 1/8	5 7/8	3 9/16	2 3/8	1 1/2	8 1/8	2 3/4	1		1 1/8	3 31/32	2-1 1/2	9	\$13.50
PR-111	1 11/16	2 5/8	6 1/2	4 1/4	3 3/8	17 3/32	9	3	1 1/16		1 1/4	4 7/16	2-5/8	13	\$16.50
PR-115	1 15/16	2 1/2	7	4 1/4	3 3/8	17 3/32	9 3/4	3 3/8	1 1/4		1 1/4	4 3/4	2-5/8	16	\$18.50
PL-203	2 3/16	2 3/4	7 1/2	4 5/8	3 7/8	19 3/32	10 1/4	3 5/8	1 1/4		1 1/4	5 1/4	2-3/4	19 1/2	\$24.00
PR-207	2 7/16	3	8 1/4	4 7/8	3 5/8	19 3/32	11 1/4	4	1 3/8		1 3/8	5 3/4	2-3/4	25	\$30.00
PR-211	2 11/16	3 1/2	9 3/4	5 5/8	4 5/8	21 3/32	13	4 1/2	1 1/2		1 5/8	6 23/32	2-7/8	38	\$36.00
PR-215	2 5/16	3 1/2	9 3/4	5 5/8	4 5/8	21 3/32	13	4 1/2	1 1/2		1 5/8	6 23/32	2-7/8	36	\$36.00
PR-303	3 3/16	4	11 1/2	5 7/8	4 9/16	21 3/32	15	5	1 1/2	3	1 1/2	8 1/8	4-3/4	58	\$60.00
PR-307	3 7/16	4	11 1/2	5 7/8	4 9/16	21 3/32	15	5	1 1/2	3	1 1/2	8 1/8	4-3/4	55	\$60.00

## NORMAL DUTY FLANGE UNITS, Roller Bearing

Shaft Size	A	C	D	G	H	Bolts Req'd	Net Wt.	LIST EACH
15/16	2 5/8	3	7/16	5 1/8	2 1/16	3-3/8	4 1/2	\$9.25
1	2 5/8	3	7/16	5 1/8	2 1/16	3-3/8	4 1/2	\$9.25
1 1/16	2 3/4	3 3/8	1 1/2	5 1/2	2 1/4	3-3/8	6 1/4	\$10.25
1 1/4	2 3/4	3 3/8	1 1/2	5 1/2	2 1/4	3-3/8	6 1/4	\$10.25
1 1/2	2 15/16	3 9/16	1 1/2	6 1/4	2 1/2	3-1/2	6 1/2	\$11.80
1 5/8	2 15/16	3 9/16	1 1/2	6 1/4	2 1/2	3-1/2	6 1/2	\$11.80
2	3 3/16	4 1/8	1 1/2	6 3/4	2 3/4	4-1/2	9 1/2	\$13.85
2 1/8	3 3/16	4 3/8	1 1/2	7	2 7/8	4-1/2	10 1/2	\$15.90
2 1/4	3 3/16	4 3/8	1 1/2	7	2 7/8	4-1/2	10 1/2	\$15.90
2 1/2	3 3/8	4 7/8	1 1/2	7 3/4	3 3/16	4-5/8	14	\$20.50
2 3/4	3 3/8	5 1/16	1 1/2	8 1/8	3 3/8	4-5/8	16 3/4	\$24.60
2 7/8	3 3/8	5 1/16	1 1/2	8 1/8	3 3/8	4-5/8	16 3/4	\$24.60
3	4 1/16	6 1/4	3/4	9 1/2	3 15/16	4-3/4	27 1/4	\$30.75
3 1/8	4 1/16	6 1/4	3/4	9 1/2	3 15/16	4-3/4	26	\$30.75

Self-Aligning. To be bolted to machine frame, which need not be machined. Also used as step bearing for vertical shafts.

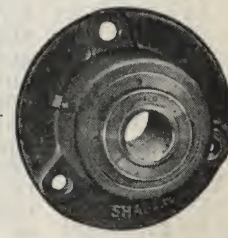
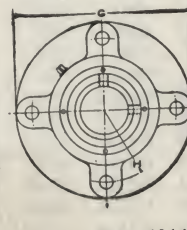
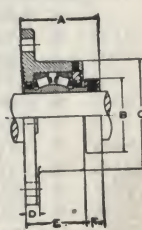


Fig. 4314

**DISCOUNT**

**25% OFF**

Only the most popular sizes and types of Shafter Mounted Roller Bearings are shown. A complete catalog will be sent promptly on request.



# INDUSTRIAL V-BELTS

For Multiple Groove Service



Fig. 4537

These V-Belts are licensed under U. S. Patent Number 1,662,511. By using V-Belts the center distance can be decreased to a minimum permitting the saving of floor space. V-Belts will give up to 95% efficiency of transmission when properly installed. Silent and safe. Requires little attention. Proper recommendation for the installation of V-Belts and Sheaves will be made if you will please advise Speed of motor; Horsepower; and Minimum and maximum permissible center distance. Prices for sizes not shown on request.

## 4537A. "A" Cross Section $\frac{1}{2}$ " wide x $\frac{1}{4}$ " thick

Nom. Inside Circum. Inches	Nom. Pitch Lgth. Inches	Nom. Outside Circum. Inches	Gilmer No.	Allis-Chalmers No.	Dayton Rubber Co. No.	Gates Rubber Co. No.	LIST EACH
26	27	28	2A6	A26	2A8	26A	\$ 1.30
31	32	33	3A1	A31	3A3	31A	\$ 1.40
35	36	37	3A5	A35	3A7	35A	\$ 1.50
38	39	40	3A8	A38	4A0	38A	\$ 1.60
42	43	44	4A2	A42	4A4	42A	\$ 1.70
46	47	49	4A6	A46	4A9	46A	\$ 1.80
51	52	54	5A1	A51	5A4	51A	\$ 1.90
60	61	63	6A0	A60	6A3	60A	\$ 2.10
68	69	71	6A8	A68	7A1	68A	\$ 2.30
75	76	78	7A5	A75	7A8	75A	\$ 2.50
80	81	83	8A0	A80	8A3	80A	\$ 2.70
85	86	88	8A5	A85	8A8	85A	\$ 2.90
90	91	93	9A0	A90	9A3	90A	\$ 3.10
96	97	99	9A6	A96	9A9	96A	\$ 3.30
105	106	108	1A05	A105	1A08	105A	\$ 3.60
112	113	115	1A12	A112	1A15	112A	\$ 4.00
120	121	123	1A20	A120	1A23	120A	\$ 4.30
128	129	131	1A28	A128	1A31	128A	\$ 4.60

## 4537B. "B" Cross Section $\frac{3}{4}$ " wide x $\frac{1}{8}$ " thick

Nom. Inside Circum. Inches	Nom. Pitch Lgth. Inches	Nom. Outside Circum. Inches	Gilmer No.	Allis-Chalmers No.	Dayton Rubber Co. No.	Gates Rubber Co. No.	LIST EACH
35	36.4	37	3B5	B35	3B7	35B	\$ 2.00
38	39.4	40	3B8	B38	4B0	38B	\$ 2.20
42	43.4	44	4B2	B42	4B4	42B	\$ 2.40
46	47.4	49	4B6	B46	4B9	46B	\$ 2.60
51	52.4	54	5B1	B51	5B4	51B	\$ 2.80
55	56.4	58	5B5	B55	5B9	55B	\$ 2.90
60	61.4	63	6B0	B60	6B3	60B	\$ 3.00
68	69.4	71	6B8	B68	7B1	68B	\$ 3.30
75	76.4	78	7B5	B75	7B8	75B	\$ 3.60
81	82.4	84	8B1	B81	8B4	...	\$ 3.90
85	86.4	88	8B5	B85	8B8	85B	\$ 4.10
90	91.4	93	9B0	B90	9B3	90B	\$ 4.30
97	98.9	99	9B7	B97	9B9	97B	\$ 4.70
105	106.4	108	1B05	B105	1B08	105B	\$ 5.00
112	113.9	115	1B12	B112	1B15	112B	\$ 5.40
120	121.4	123	1B20	B120	1B23	120B	\$ 5.70
128	129.4	131	1B28	B128	1B31	128B	\$ 6.10
144	145.4	147	1B44	B144	1B47	144B	\$ 6.90
158	159.4	161	1B58	B158	1B61	158B	\$ 7.50
173	174.4	177	1B73	B173	1B77	173B	\$ 8.20
180	181.4	184	1B80	B180	1B84	180B	\$ 8.60
195	196.4	200	1B95	B195	2B00	195B	\$ 9.30
210	213.4	214	2B10	B210	2B14	210B	\$10.00

## 4537C. "C" Cross Section $\frac{7}{8}$ " wide x $\frac{1}{2}$ " thick

Nom. Inside Circum. Inches	Nom. Pitch Lgth. Inches	Nom. Outside Circum. Inches	Gilmer No.	Allis-Chalmers No.	Dayton Rubber Co. No.	Gates Rubber Co. No.	LIST EACH
51	53	54	5C1	C51	5C4	51C	\$ 4.60
60	62	63	6C0	C60	6C3	60C	\$ 5.40
68	70	71	6C8	C68	6C3	68C	\$ 6.10
75	77	78	7C5	C75	7C3	75C	\$ 6.70
81	83	84	8C1	C81	8C4	81C	\$ 7.30
85	86	88	8C5	C85	8C8	85C	\$ 7.50
90	92	93	9C0	C90	9C3	90C	\$ 8.10
96	98	99	9C6	C96	9C9	96C	\$ 8.60
105	107	108	1C05	C105	1C08	105C	\$ 9.40
112	114	115	1C12	C112	1C15	112C	\$10.00
120	122	123	1C20	C120	1C23	120C	\$10.70
128	130	131	1C28	C128	1C31	128C	\$11.40
144	146	147	1C44	C144	1C47	144C	\$12.80
158	160	161	1C58	C158	1C61	158C	\$14.00
162	164	165	1C62	C162	1C65	162C	\$14.30
173	175	176	1C73	C173	1C76	173C	\$15.30
180	182	184	1C80	C180	1C84	180C	\$16.00
195	197	199	1C95	C195	1C99	195C	\$17.30
210	213	214	2C10	C210	2C14	210C	\$18.70
238	240	244	2C38	C240	2C44	240C	\$21.00
268	270	274	2C68	C270	2C74	270C	\$23.70
298	300	304	2C98	C300	3C04	300C	\$26.30

## 4537D. "D" Cross Section $1\frac{1}{4}$ " wide x $\frac{3}{4}$ " thick

Nom. Inside Circum. Inches	Nom. Pitch Lgth. Inches	Nom. Outside Circum. Inches	Gilmer No.	Allis-Chalmers No.	Dayton Rubber Co. No.	Gates Rubber Co. No.	LIST EACH
120	122.4	123	1D20	D120	1D23	120D	\$19.80
128	130.4	131	1D28	D128	1D31	128D	\$21.10
144	146.4	147	1D44	D144	1D47	144D	\$23.70
158	160.4	161	1D58	D158	1D61	158D	\$26.00
162	164.4	165	1D62	D162	1D65	162D	\$26.80
173	175.4	176	1D73	D173	1D76	173D	\$28.40
180	182.4	183	1D80	D180	1D84	180D	\$29.50
195	197.6	198	1D95	D195	1D99	195D	\$32.00
210	213.1	214	2D10	D120	2D14	210D	\$34.50
238	240	244	2D38	D240	2D44	240D	\$38.80
268	270	274	2D68	D270	2D74	270D	\$43.70

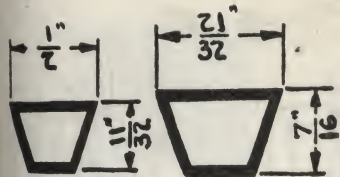
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# FRACTIONAL HORSE POWER 'V' BELTS

Single belt applications. For use on small utility tools and devices and light machinery. V belt drives effect a saving in space as they operate efficiently on short center distances. These belts are built to fit the sheave.



A Cross-Section B Cross-Section

Specification sheets can be furnished for: Water Pumps; Washing Machines; Refrigerators; Oil Burners; or Beer Pumps; V-Belts for Power Transmission. SPECIFY SHEET WANTED.

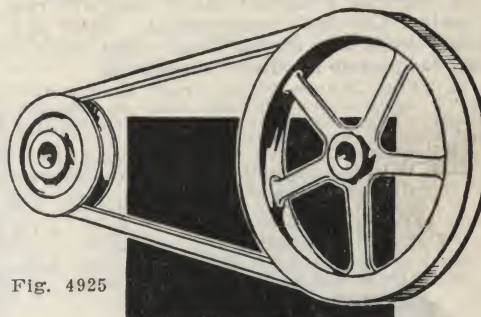


Fig. 4925

F. H. P. Belt No.	Outside Circumference	Inside Circumference	LIST EACH	F. H. P. Belt No.	Outside Circumference	Inside Circumference	LIST EACH	F. H. P. Belt No.	Outside Circumference	Inside Circumference	LIST EACH
'A' CROSS SECTION—1 1/2 INCH BY 11/32 INCH											
3215	21-1/2	19-1/2	\$1.02	3400	40	38	\$1.44	3650	65	63	\$2.21
3230	23	21	\$1.02	3410	41	39	\$1.48	3670	67	65	\$2.27
3240	24	22	\$1.02	3415	41-1/2	39-1/2	\$1.52	3685	68-1/2	66-1/2	\$2.33
3250	25	23	\$1.02	3435	43-1/2	41	\$1.60	3700	70	68	\$2.36
3260	26	24	\$1.04	3440	44	42	\$1.60	3725	72-1/2	70-1/2	\$2.45
3270	27	25	\$1.06	3455	45-1/2	43-1/2	\$1.64	3740	74	72	\$2.48
3280	28	26	\$1.08	3470	47	45	\$1.67	3765	76-1/2	74	\$2.58
3290	29	27	\$1.11	3480	48	46	\$1.70	3770	77	75	\$2.58
3300	30	28	\$1.14	3490	49	47	\$1.73	3800	80	77-1/2	\$2.70
3315	31-1/2	29-1/2	\$1.20	3510	51	49	\$1.79	3820	82	80	\$2.73
3320	32	30	\$1.20	3530	53	51	\$1.85	3850	85	83	\$2.78
3330	33	31	\$1.23	3545	54-1/2	52	\$1.91	3870	87	85	\$2.83
3335	33-1/2	31-1/2	\$1.26	3560	56	53-1/2	\$1.94	3900	90	88	\$2.90
3345	34-1/2	32-1/2	\$1.29	3570	57	55	\$1.97	3920	92	90	\$2.94
3360	36	34	\$1.32	3580	58	56	\$2.00	3960	96	93-1/2	\$3.06
3370	37	35	\$1.35	3600	60	57-1/2	\$2.06	3980	98	96	\$3.12
3380	38	36	\$1.38	3620	62	60	\$2.12				
3395	39-1/2	37-1/2	\$1.44	3630	63	61	\$2.15				

## 'B' CROSS SECTION—2 1/32 INCH BY 7/16 INCH

4325	32-1/2	29-1/2	\$1.52	4510	51	48	\$2.39	4740	74	71	\$3.48
4340	34	31-1/2	\$1.56	4520	52	49	\$2.44	4760	76	73	\$3.57
4360	36	33	\$1.65	4530	53	50	\$2.49	4780	78	75	\$3.68
4365	36-1/2	34	\$1.70	4540	54	51	\$2.53	4800	80	77	\$3.78
4380	38	35	\$1.74	4560	56	53	\$2.62	4820	82	79	\$3.88
4390	39	36	\$1.78	4580	58	55	\$2.72	4840	84	81	\$3.98
4400	40	37	\$1.84	4585	58-3/4	56	\$2.77	4860	86	83	\$4.05
4410	41	38	\$1.90	4610	61	58	\$2.89	4880	88	85	\$4.12
4425	42-1/2	39-1/2	\$2.02	4630	63	60	\$2.98	4895	89-1/2	86-1/2	\$4.20
4440	44	41	\$2.08	4645	64-1/2	62	\$3.06	4910	91	88	\$4.24
4450	45	42	\$2.12	4670	67	64	\$3.15	4930	93	90	\$4.32
4470	47	44-1/4	\$2.20	4680	68	65	\$3.20	4960	96	93	\$4.44
4475	47-1/2	44-1/2	\$2.25	4710	71	68	\$3.35	4980	98	95	\$4.54
4490	49	46	\$2.30	4720	72	69	\$3.40	4995	99-1/2	97	\$4.64
4500	50	47	\$2.35	4730	73	70	\$3.44				

DISCOUNT ..... 40-25% OFF

## V BELT SHEAVES



Price list covering Standard V Belt Cast Iron Sheaves and Light Duty V Belt Cast Iron Sheaves will be sent FREE to you upon request.

SEE NEXT PAGE FOR STEEL V-PULLEYS

## CAMPBELLS PULLEY COVERING



Fig. 4926

A practical, yet inexpensive, means of combating Belt Slip. (Belt Slip is known to be one of the greatest sources of power waste wherever belt drives are used). Not a belt dressing.

Campbells Pulley Covering is guaranteed to eliminate belt slip and to give satisfactory service for a minimum period of six months. It has rendered from two to four years of efficient service in many plants, but the guarantee is made in view of the fact that it will wear faster on certain high-speed or enormous load machines than it will on the lower speed variety. Users of high-speed machinery can and will obtain a greater saving in six months than the operator of the slower machine will during the same period, due to the difference in output of the two machines.

To apply the pulley covering the pulley face should be thoroughly cleaned, and made free from all grease, grit, varnish or lacquer, as the Compound is oil resisting. Campbells Pulley Covering comes in liquid form, packed 2 & 5 pound pails. It is applied with a brush and reinforced with a thin fabric. It requires from eight to ten hours to dry and set thoroughly, but once hardened, it is virtually a part of the pulley itself. It is oil, acid, and fire-proof.

2 Pound Pail With Muslin.....★ NET POUND, \$2.00  
5 Pound Pail With Muslin.....★ NET POUND, \$1.85



# STEEL V-PULLEYS

A superior designed pulley that will run true and give long, trouble-free service. Made of best materials. Carefully constructed. They are welded in a manner that gives unusual strength. Extra heavy hubs are turned from solid steel or malleable iron. Finished with heavy smooth rolled edges and lacquered in silver aluminum.

**BORES:** Where bores larger than maximum bore listed are wanted, pulleys may be furnished where quantity warrants. Write for price stating quantity and size of bore wanted.

**SET SCREWS:** 5/16 inch—18-thread, flush type.

**KEYWAYS:** Furnished in the following sizes:

Size of Bores	Keyways
5/8" to 7/8"	3/16" x 3/32"
15/16" to 1-1/4"	1/4" x 1/8"
1-5/16" to 1-7/16"	3/8" x 3/16"

No keyways in 3/8 inch and 1/2 inch bores.  
Keyway in 5/8 inch and larger bores.

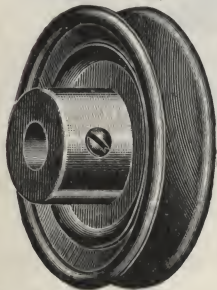
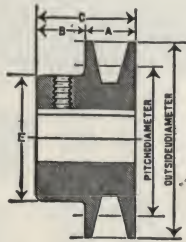
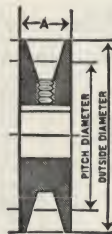


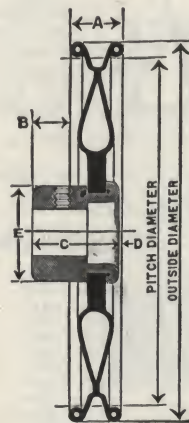
Fig. 4924



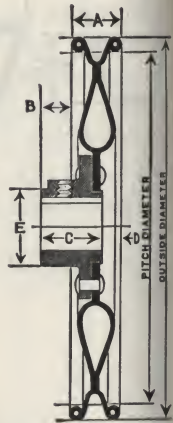
TYPE 1



TYPE 2



TYPE 3



TYPE 4

\* Indicates size of bore furnished at LIST PRICE.

x Indicates size of bore furnished at \$0.65 added to list price.

## SINGLE 'A' GROOVE PULLEYS—For V Belts Up to 17/32 Inch Wide

Size No.	Outside Diam.	Pitch	Type	LIST EACH	Furnished with straight bore as indicated													Dimensions—Inches			
		Inch			3/8"	1/2"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 1/4"	1 1/2"	A	B	C	
2150	1.50	1.28	1	\$0.60	*	*	*	*	*	*	*	*	*	*	19/32	17/32	1 1/8	1 1/4			
2175	1.75	1.56	1	\$0.70	*	*	*	*	*	*	*	*	*	*	19/32	17/32	1 1/8	1 1/4			
2200	2.00	1.82	3	\$0.75	*	*	*	*	*	*	*	*	*	*	19/32	17/32	1 1/8	1 1/4			
2210	2.10	1.88	3	\$0.75	*	*	*	*	*	*	*	*	*	*	19/32	17/32	1 1/8	1 1/4			
2225	2.25	1.97	3	\$0.75	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2250	2.50	2.22	3	\$0.80	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2275	2.75	2.47	3	\$0.85	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2300	3.00	2.80	3	\$1.00	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2325	3.25	2.97	3	\$1.05	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2350	3.50	3.09	3	\$1.15	*	*	*	*	*	*	X	X	X	X	25/32	15/16	1 1/4	1 1/2			
2380	3.80	3.52	3	\$1.25	*	*	*	*	*	*	X	X	X	X	25/32	15/16	1 1/4	1 1/2			
2400	4.00	3.69	3	\$1.25	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2425	4.25	4.06	3	\$1.30	*	*	*	*	*	*	*	*	*	*	25/32	15/16	1 1/4	1 1/2			
2450	4.50	4.25	3	\$1.35	*	*	*	*	*	*	*	*	*	*	X	X	1 1/4	1 1/2			
2500	5.00	4.78	3	\$1.50	*	*	*	*	*	*	*	*	*	*	X	X	1 1/4	1 1/2			
2525	5.25	4.97	3	\$1.55	*	*	*	*	*	*	*	*	*	*	X	X	1 1/4	1 1/2			
2600	6.00	5.78	3	\$1.65	*	*	*	*	*	*	*	*	*	*	X	X	1 1/4	1 1/2			
2700	7.00	6.72	3	\$2.25	*	*	*	*	*	*	*	*	*	*	X	X	1 1/2	1 3/4			
2800	8.00	7.78	3	\$2.55	*	*	*	*	*	*	*	*	*	*	X	X	1 1/2	1 3/4			
2900	9.00	8.78	3	\$2.80	*	*	*	*	*	*	*	*	*	*	X	X	1 1/2	1 3/4			
3100	10.00	9.72	3	\$3.10	*	*	*	*	*	*	*	*	*	*	X	X	1 1/2	1 3/4			
3110	11.00	10.78	3	\$3.60	*	*	*	*	*	*	*	*	*	*	X	X	1 1/2	1 3/4			
3120	12.00	11.78	3	\$4.10	*	*	*	*	*	*	*	*	*	*	X	X	1 1/2	1 3/4			

## SINGLE 'B' GROOVE PULLEYS—For V Belts 1/2 to 11/16 Inch Wide

Size No.	Outside Diam.	Pitch Diam.	Type	LIST EACH	1/2"	5/8"	3/4"	13/16"	1"	1 1/16"	1 1/8"	1 1/4"	1 1/2"	Dimensions—Inches	A	B	C	D
4200	2.00	1.35	1	\$1.00	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4225	2.25	1.60	1	\$1.00	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4250	2.50	1.85	2.15	\$1.10	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4260	2.60	1.95	2.25	\$1.15	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4270	2.70	2.05	2.35	\$1.20	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4280	2.80	2.15	2.45	\$1.20	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4290	2.90	2.25	2.55	\$1.20	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4300	3.00	2.35	2.65	\$1.25	*	*	*	*	*	*	*	*	*	25/32	1 1/2	1 1/2	1 1/2	1 1/2
4325	3.25	2.60	2.90	\$1.35	*	*	*	*	*	*	*	*	*	1 1/16	1 1/2	1 1/2	1 1/2	1 1/2
4350	3.50	2.85	3.15	\$1.45	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4380	3.80	3.15	3.45	\$1.45	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4400	4.00	3.35	3.65	\$1.50	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4450	4.50	3.85	4.15	\$1.60	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4500	5.00	4.35	4.65	\$1.70	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4600	6.00	5.35	5.65	\$1.80	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4700	7.00	6.35	6.65	\$2.40	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4800	8.00	7.35	7.65	\$2.75	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
4900	9.00	8.35	8.65	\$3.00	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5100	10.00	9.35	9.65	\$3.35	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5110	11.00	10.35	10.65	\$3.80	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5120	12.00	11.35	11.65	\$4.30	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5130	13.00	12.35	12.65	\$5.00	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5140	14.00	13.35	13.65	\$5.60	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5150	15.00	14.35	14.65	\$6.20	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5160	16.00	15.35	15.65	\$7.00	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5180	18.00	17.35	17.65	\$8.00	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2
5190	19.00	18.35	18.65	\$8.50	*	*	*	*	*	*	*	*	*	1 1/8	1 1/2	1 1/2	1 1/2	1 1/2

**DISCOUNT**

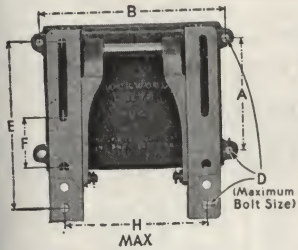
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# ROCKWOOD SHORT-CENTER DRIVE

## FLAT BELT

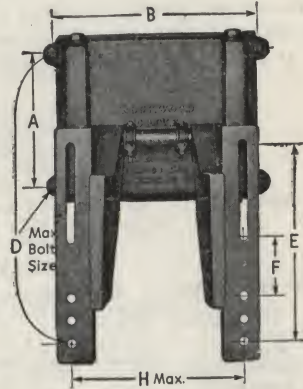
As simple as moving the weight on a scale beam—the Rockwood Drive provides means for establishing correct belt tension when the drive is installed and **AUTOMATICALLY MAINTAINS THE CORRECT BELT TENSION** throughout the life of the drive. Clean. Quiet. Efficient. Simple. Durable.



### STANDARD BASE

Fig. 4539

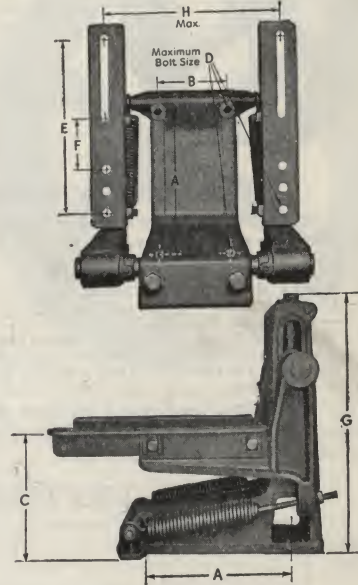
For floor or platform mounting. Can also be mounted on walls or ceilings.



### CEILING BASE

Fig. 4540

For ceiling mounting. An ideal efficient line-shaft drive.



### VERTICAL BASE

Fig. 4541

For mounting on machines directly above or below driven pulley.

## ★ NET EACH. SPECIFICATIONS AND DIMENSIONS

Rockwood Base No.	H. P. Motor Rating 1800 R.P.M.	H. P. Motor Rating 1200 R.P.M.	H. P. Motor Rating 900 R.P.M.	Minimum Pulley Diameter Inches	Belt Width Inches	A Inches	B Inches	C Inches	D Inches	E Inches	F Inches	G Inches	H Inches	Shipping Weight Pounds	★NET EACH
000	Up to 1 H.P.					5 1/2	5 1/4	2 3/8	3/8	7	2		7 3/8	8	\$ 3.35
00	Up to 1 1/2 H.P.					6 1/2	7 1/8	3	3/8	9	4		9 3/8	13	\$ 4.40

### FIG. 4538 SMALL MOTOR BASES

### FIG. 4539 STANDARD DRIVE BASES

### FIG. 4540 CEILING DRIVE BASES

### FIG. 4541 VERTICAL DRIVE BASES

0	1	3/4	1 1/2	2 1/2	2 1/2	7 3/8	12 3/8	4 1/2	1/2	11	3 1/2		8 1/2	35	\$11.40
2	3	1 1/2	1 1/2	3	3	9 3/8	15 1/4	5 1/2	5/8	13	3 3/8		10 1/2	55	\$15.10
4	5	2	2	4	4	11	17 1/4	6 1/4	5/8	15	4 1/8		13	80	\$19.90
6	7 1/2	3	3	5	5	12 3/4	19	7	3/4	17	5		14 1/4	110	\$25.70
8	10	7 1/2	7 1/2	6	6	14 1/4	21	8	3/4	19	6 1/2		15 1/4	150	\$32.55
10	15	10	10	7	7	16	23	8 1/2	7/8	22	8 3/8		18	210	\$42.90
12	20	15	15	8	8	19 1/8	30	10	1	27	12 1/4		22	360	\$66.75
14	25	20	20	9	9										
16	30	25	25	10	10										
18	40	30	30	11	11										
20	50	40	40	12	12										
22	60	50	50												
24	75	60	60												
26															
28															
30															
32															
34															
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# SOLID SINGLE ARM CAST IRON PULLEYS

Fig. 638A

**Bored, Turned and Balanced; Keyseated or Setscrewed**

Our Pulleys are machine moulded, bored and turned in the lathe, carefully balanced; are made either straight or crowning face, and are provided with set screws or key seat as desired.

Important: Pulleys are not returnable for credit.

Note: (\*) Shipments will be made in one week on all Cast Iron Pulley

## Directions for Ordering

To fill your order we must know the following:

1. Diameter of Pulley.
2. Width of face.
3. Style—crowning or straight.
4. Exact diameter of bore.
5. If hubs are offset or special, give full information—sketch if possible.
6. Whether key-seated, screwed or both. Give size of keyway and state whether straight or taper.
7. Special features—solid, split, flanged, etc.

When orders are received and no description given, crowning face solid pulleys will be furnished. Prices for special sizes not mentioned in the list will be quoted on application.

## IMPORTANT!

List prices on this and following pages include either Key Seat OR Set Screw. The following net extra charge applies where BOTH Key Seat and Set Screws are required.

15 inch and smaller.....\$0.50	36 to 48 inch.....\$1.00
16 to 24 inch......60	50 to 60 inch..... 1.15
25 to 35 inch......70	62 to 72 inch..... 1.30

## MAXIMUM STANDARD BORES

Bores larger than specified will be charged extra as per list on a following page.

Diam. 4-9 in., maximum std. bore.....1 1/16 in.
Diam. 10-16 in., maximum std. bore.....2 1/16 in.
Diam. 17-20 in., maximum std. bore.....2 1/8 in.
Diam. 21-30 in., maximum std. bore.....3 1/16 in.
Diam. 31-42 in., maximum std. bore.....3 1/8 in.
Diam. 43-48 in., maximum std. bore.....4 1/16 in.
Diam. 50-60 in., maximum std. bore.....4 1/8 in.
Diam. 62-96 in., maximum std. bore.....5 1/16 in.

## LIST PRICES EACH PULLEY (Larger Sizes Up to 12 Feet Diameter, Prices on Application)

### FACE, INCHES

Diam., Ins.	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24
2	\$2.85	\$3.20	\$3.60	\$4.05	\$4.50	\$5.10									
3	3.10	3.50	3.90	4.40	4.75	5.50									
4	3.35	3.75	4.15	4.60	5.10	5.70	\$6.25	\$6.80	\$8.00						
5	3.65	4.00	4.40	4.90	5.40	6.00	6.60	7.25	8.30						
6	2.50	2.80	3.15	3.60	4.10	4.55	5.05	5.55	....						
7	2.70	3.05	3.50	3.95	4.40	4.90	5.35	5.85	....						
8	2.90	3.35	3.80	4.25	4.75	5.25	5.80	6.35	7.60						
9	3.20	3.65	4.15	4.65	5.20	5.75	6.30	6.90	8.15						
10	3.45	3.95	4.45	5.00	5.55	6.15	6.80	7.50	8.95						
11	3.70	4.25	4.80	5.40	6.00	6.65	7.30	8.00	9.55						
12	3.95	4.55	5.15	5.80	6.45	7.15	7.85	8.60	10.15	\$11.75	\$14.10				
13	4.20	4.85	5.50	6.20	6.90	7.65	8.40	9.20	10.85	12.60	....				
14	4.50	5.20	5.95	6.70	7.50	8.30	9.10	9.95	11.70	13.50	16.20				
15	4.80	5.55	6.35	7.15	8.00	8.85	9.75	10.65	12.55	....	....				
16	5.10	5.80	6.60	7.45	8.50	9.20	10.10	11.05	13.00	15.00	17.20	\$20.30			
18	5.70	6.65	7.60	8.55	9.55	10.55	11.60	12.65	14.85	17.05	19.45	23.00			
20	6.40	7.45	8.55	9.65	10.80	11.95	13.15	14.35	16.85	19.45	22.15	24.95			
22	7.10	8.30	9.50	10.75	12.00	13.30	14.60	15.95	18.70	21.55	24.80	27.55			
24	7.90	9.25	10.60	12.00	13.40	14.85	16.30	17.80	20.85	24.00	27.25	30.60			
26	8.80	10.30	11.80	13.35	14.90	16.50	18.10	19.70	23.10	26.55	30.10	33.75			
28	9.80	11.45	13.10	14.80	16.50	18.25	20.00	21.80	25.45	29.20	33.05	36.90			
30	10.85	12.65	14.45	16.30	18.15	20.05	21.95	23.90	27.85	31.90	36.00	40.25	\$44.60	\$49.05	\$61.80
32	11.95	13.90	15.85	17.85	19.85	21.90	23.95	26.05	30.30	34.70	39.20	43.80	48.50	53.30	67.10
34	13.10	15.20	17.30	19.45	21.60	23.80	26.05	28.30	32.90	37.60	42.40	47.30	52.30	57.40	62.65
36	14.30	16.55	18.85	21.15	23.50	25.85	28.25	30.70	35.65	40.70	45.85	51.10	56.45	61.90	67.40
38		18.00	20.50	23.00	25.55	28.10	30.70	33.30	38.60	44.00	49.50	55.10	60.80	66.55	72.35
40				24.80	27.45	30.10	32.80	35.50	40.95	46.45	52.05	57.75	63.60	69.35	75.35
42				26.65	29.45	32.25	35.10	37.95	43.70	49.50	55.40	61.35	67.35	73.35	79.40
44				28.65	31.65	34.65	37.70	40.75	46.85	53.05	59.25	65.55	71.80	78.25	84.75
46				30.65	33.85	37.05	40.25	43.45	49.95	56.50	63.10	69.80	76.55	83.40	90.30
48				32.75	36.10	39.45	42.85	46.25	53.10	60.00	67.00	74.10	81.30	88.60	95.55
50				34.90	38.40	41.95	45.50	49.10	56.35	63.70	71.15	78.70	86.35	94.15	102.05
52				37.25	41.00	44.75	48.55	52.35	60.05	67.85	75.75	83.75	91.85	100.00	108.20
54				39.60	43.55	47.55	51.55	55.60	63.75	72.00	80.35	88.80	97.35	106.00	114.70
56				42.05	46.20	50.40	54.65	58.95	67.50	76.25	85.10	94.05	103.10	112.25	121.45
58				44.60	49.00	53.45	57.95	62.45	71.55	80.75	90.05	99.45	108.95	118.60	128.45
60				47.25	51.85	56.50	61.20	65.90	75.45	85.15	95.00	105.05	115.20	125.55	136.00
62				49.85	54.60	59.40	64.25	69.15	79.10	89.25	99.60	110.15	120.90	131.85	142.95
64				52.65	57.50	62.40	67.35	72.35	82.50	92.85	103.40	114.15	125.10	136.30	147.90
66				55.55	60.50	65.50	70.55	75.65	86.00	96.55	107.30	118.25	129.45	141.05	152.95
68				58.55	63.60	68.70	73.85	79.05	89.60	100.35	111.30	122.50	133.95	145.75	157.95
70				61.50	66.70	71.95	77.85	82.65	93.60	104.75	116.10	127.75	139.75	152.15	164.90
72				64.55	69.90	75.30	80.75	86.25	97.40	108.85	120.65	132.85	145.45	158.45	171.95

**PRICE.**

**LIST NET**



# SPLIT SINGLE ARM CAST IRON PULLEYS

Bored, Turned, Keyseated or Setscrewed and Balanced

NOTE: Split construction facilitates handling and permits the placing on shaft or removal without disturbing shaft or bearings. All cast iron pulleys made to order, shipped promptly and are not returnable. Double arm pulleys, prices on application.

IMPORTANT: These Pulleys not returnable for credit.

## Directions for Ordering

To fill your order we must know the following:

1. Diameter of Pulley.
2. Width of face.
3. Style—crowning or straight.
4. Exact diameter of bore.
5. If hubs are offset or special, give full information—sketch if possible.
6. Whether key-seated, screwed or both. Give size of key-way and state whether straight or taper.



Fig. 2434

## LIST PRICES PER PULLEY

Diam., Ins.	FACE, INCHES														
	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24
6	\$4.00	\$4.30	\$4.90	\$5.35	\$6.10	\$6.55									
7	4.20	4.55	5.25	5.70	6.40	6.90									
8	4.50	4.95	5.70	6.15	6.95	7.45									
9	4.80	5.25	6.05	6.55	7.40	7.95									
10	5.15	5.65	6.50	7.05	7.95	8.55	\$9.60	\$10.30	\$12.15	\$15.20	\$18.70	\$22.50			
11	5.40	5.95	6.85	7.65	8.40	9.05	10.10	10.80	12.75	.....	.....	.....			
12	5.75	6.40	7.35	8.00	9.05	9.75	10.90	11.65	13.65	15.75	19.10	.....			
13	6.00	6.65	7.70	8.40	9.50	10.25	11.45	12.25	14.35	15.75	.....	.....			
14	6.45	7.15	8.35	9.10	10.35	11.15	12.45	13.30	15.55	17.90	21.60	.....			
15	6.75	7.50	8.75	9.55	10.85	11.70	13.10	14.00	16.40	.....	.....	.....			
16	7.20	7.90	9.20	10.05	11.60	12.30	13.75	14.70	17.20	19.80	22.65	27.00			
18	7.95	8.90	10.40	11.35	12.90	13.90	15.55	16.60	19.40	22.25	25.30	30.40			
20	8.85	9.90	11.60	12.70	14.45	15.60	17.45	18.65	21.80	25.10	28.50	32.05			
22	9.75	10.95	12.80	14.05	15.95	17.25	19.25	20.60	24.05	27.65	31.35	35.20			
24	10.70	12.05	14.15	15.55	17.65	19.10	21.30	22.80	26.60	30.55	34.60	38.80	\$43.10	\$51.60	\$60.10
26	11.80	13.30	15.65	17.20	19.50	21.10	23.50	25.15	29.30	33.60	38.00	42.55	.....	.....	.....
28	13.05	14.65	17.25	18.95	21.45	23.20	25.80	27.60	32.10	36.75	41.50	46.30	.....	.....	.....
30	14.35	16.15	18.90	20.75	23.45	25.35	28.15	30.10	34.95	39.95	45.00	50.25	55.60	61.10	76.80
32	15.75	17.70	20.65	22.65	25.55	27.60	30.60	32.70	37.90	43.30	48.80	54.45	60.20	66.10	83.00
34	17.20	19.30	22.45	24.60	27.70	29.90	33.15	35.40	41.00	46.75	52.60	59.60	64.70	70.95	77.35
36	18.70	20.05	24.40	26.65	30.00	32.35	35.80	38.25	44.25	50.40	56.65	63.05	69.55	76.20	82.90
38		22.75	26.45	28.90	32.50	35.05	38.75	41.35	47.75	54.30	60.95	67.75	74.65	81.65	88.70
40				31.10	34.85	37.50	41.35	44.05	50.65	57.35	64.15	71.10	78.10	85.25	92.55
42				33.35	37.30	40.10	44.15	47.00	53.95	60.70	68.15	75.40	82.70	90.05	97.45
44				35.80	40.00	43.00	47.30	49.35	57.70	64.90	72.70	80.35	87.95	95.80	103.80
46				38.25	42.70	45.90	50.40	53.60	61.40	69.00	77.25	87.75	93.50	101.80	110.15
48				40.80	45.45	48.80	53.55	57.95	65.15	73.15	81.85	90.40	99.05	107.85	116.70
50				43.45	48.30	51.85	56.80	60.40	69.05	77.55	86.75	95.80	104.95	116.30	123.85
52				46.30	51.45	55.20	60.45	64.25	73.40	82.40	92.10	101.65	111.30	121.05	130.85
54				49.15	54.55	58.55	64.05	68.10	77.75	87.25	97.45	107.50	117.65	127.95	138.30
56				52.15	57.80	62.00	67.80	72.10	82.20	92.25	103.00	113.60	124.30	135.15	146.05
58				55.25	61.20	65.65	71.75	76.25	86.95	97.50	108.75	119.85	131.05	142.45	154.05
60				58.45	64.65	69.30	75.65	80.35	91.55	102.65	114.50	126.30	138.20	150.35	162.60
62				61.65	68.05	72.85	79.40	84.30	95.95	107.55	119.95	132.30	144.85	157.65	170.60
64				65.05	71.60	76.50	83.20	88.20	100.10	111.95	124.60	137.20	150.00	163.10	176.60
66				68.55	75.25	80.25	87.10	92.20	104.35	116.45	129.35	142.20	155.30	168.85	182.70
68				72.20	79.05	84.15	91.15	96.35	108.75	121.10	134.25	147.40	160.80	174.60	188.80
70				75.80	82.85	88.10	95.30	100.70	113.55	126.35	139.95	153.60	167.60	182.05	196.85
72				79.50	86.75	92.15	99.50	105.05	118.15	131.30	145.40	159.65	174.30	189.40	205.00

PRICE.....LIST NET

Larger Sizes up to 12 feet diameter.....PRICES ON APPLICATION

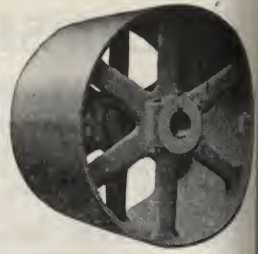




## DOUBLE ARM CAST IRON PULLEYS

Fig. 3976. SOLID Double Arm Cast Iron Pulleys illustrated on the left.

Fig. 3977. SPLIT Double Arm Cast Iron Pulleys illustrated on the right.



PRICES & INFORMATION.....ON APPLICATION

### CAST IRON PULLEY INFORMATION LARGEST BORE AT REGULAR PRICE

Pulleys with bores larger than shown are extra.....	Prices on Application
Diameter Pulley, Inches.....	2 3 & 4 5 to 9 10 to 16 18 to 24
Largest Bore, Inches.....	1 1 1/2 1 3/4 2 1/2 2 3/4
Diameter Pulley, Inches.....	22 to 30 32 to 42 44 to 48 50 to 60 62 to 72
Largest Bore, Inches.....	3 1/2 3 3/4 4 1/2 4 3/4 5 1/2

### LIST EXTRA FOR SPECIAL BORES

Additional prices for bores larger than maximum as specified in standard list.

Diameter of Pulley, Inches.....	2 to 15 16 to 30 31 to 60
Add for each additional 1/4 inch or fractional part thereof.....	10% 10% 5%
Add for each additional 1/2 inch or fractional part thereof.....	10% 10% 5%

### LIST EXTRA FOR TIGHT AND LOOSE CAST IRON PULLEYS

#### FOR SOLID PULLEYS ONLY

The following extra charge is to be added to the regular list price per pair for style "A" tight and loose pulleys. **Note:** List extras are subject to same discount as the line to which they apply.

Width of Face—Inches.....	3 to 4 5 to 6 7 to 8 9 to 10 11 to 12 13 to 14 15 to 16
Diam. 6 to 9 inches.....	\$1.30 \$2.00 \$3.00 \$4.50 \$6.00 \$7.50 \$9.30
Diam. 10 to 15 inches.....	1.50 2.30 3.40 5.00 7.00 9.50 12.00
Diam. 16 to 20 inches.....	2.10 2.90 4.00 5.50 7.50 10.00 12.50
Diam. 21 to 30 inches.....	3.30 4.10 5.20 6.80 9.10 12.50 15.30
Diam. 31 to 42 inches.....	4.50 5.50 6.90 9.00 12.10 16.50 23.00
Diam. 43 to 60 inches.....	6.00 7.40 9.30 12.00 15.80 21.00 29.00

### How to Figure the List Price of Tight and Loose Pulleys

To find the list price of a pair of tight and loose pulleys, size 12 by 4 in., straight or crowning face:

List price for 12x4 in. Cast Iron Pulley	
Each .....	\$4.55
Per Pair .....	\$9.10
Add list extra for tight and loose pulleys (See list above).....	1.50
Total List Price.....	\$10.60

### LIST EXTRA FOR FLANGED CAST IRON PULLEYS



Fig. No. 641



Fig. No. 642



Fig. No. 640

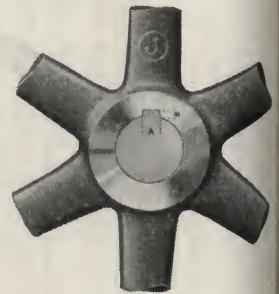
Flanges are added to retain belt, to separate two belts, or to aid in shifting belt from a loose pulley. Flanges stiffen the rim section and flanges are used to bolt two pulleys together. The following list is to be added to the regular list for flanged pulleys and the List Extra is subject to the same discount as the line to which they apply.

#### EXTRA LIST FOR FLANGES

Pulley Diameter Inches	Double Outside Fig. 641	Center Flange Fig. 642	Single Outside Fig. 640
2 to 6	\$ 5.50	\$ 3.60	\$ 3.60
7 to 12	6.00	4.00	4.00
13 to 18	7.00	4.50	4.50
20 to 24	8.00	5.20	5.20
26 to 30	11.00	7.20	7.20
32 to 36	13.00	8.50	8.50
38 to 42	15.00	9.50	9.50
44 to 48	17.00	11.00	11.00
50 to 54	20.00	13.00	13.00
56 to 60	24.00	16.00	16.00
62 to 66	30.00	20.00	20.00
68 to 72	38.00	25.00	25.00

### STANDARD KEYSEAT DIMENSIONS FOR CAST IRON PULLEYS, ETC.

List shows standard width and depth of keyseats for cast iron pulleys, sheaves, sprocket wheels, gears, etc. Special sizes of keyways can be furnished when desired, but where a keyseat is specified and no width or depth given, the following specifications will govern.



Bore, Inches	Keyway Width	Keyway Depth
3/4 to 1 1/4 inc.	1/4	1/8
1 1/2 to 1 3/4 inc.	3/8	3/16
1 3/4 to 2 1/4 inc.	1/2	1/4
2 1/2 to 2 3/4 inc.	5/8	3/8
3 to 3 1/4 inc.	3/4	1/2
3 1/2 to 3 3/4 inc.	7/8	5/8
4 to 4 1/4 inc.	1	3/4
4 1/2 to 5 1/4 inc.	1 1/8	7/8
5 1/2 to 5 3/4 inc.	1 1/4	1
5 3/4 to 6 1/4 inc.	1 3/8	1 1/8
6 1/2 to 7 1/4 inc.	1 1/2	1 1/4
7 1/2 to 8 1/4 inc.	1 3/4	1 1/2
8 1/2 to 9 1/4 inc.	2	1 3/4
9 1/2 to 10 1/4 inc.	2 1/4	2
10 1/2 to 11 1/4 inc.	2 3/4	2 1/4



# ROCKWOOD PAPER PULLEYS

## GRIP HARDEST!

2540 Stock Sizes Available for Immediate Shipment.

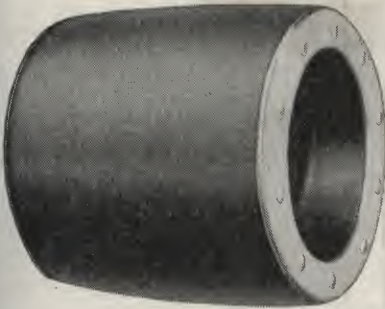
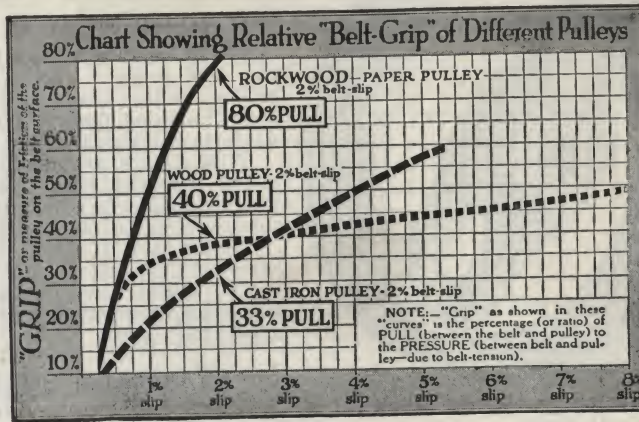


Fig. 3076



Tests prove that Rockwood Paper Pulleys grip the belt hardest and therefore pull best. The chart shows the results of tests made by Will Miller Sawdon, professor of experimental engineering at Cornell University. The curves represent the belt-grip or coefficient of friction of the different pulley surfaces at varying belt slips. Because of their end-grain fibre construction, Rockwood Paper Pulleys grip the belt as no other pulleys possibly can—and because of the reduced slippage, increase the life of the drive belts.

Especially recommended for operating motors, dynamos, generators and drop hammers. Very efficient in transmitting power and can be run at very high speed with safety. Lighter tension on belts reduces strains, and there is less slippage, thus increasing the life of the belt. Not affected by atmospheric conditions. Keyseated and set-screwed. Prices on larger sizes quoted on application.

**FLANGES.** Single Outside Flange; Double Outside Flange; or Center Flange; can be furnished, prices on request or order will be filled at correct market price.

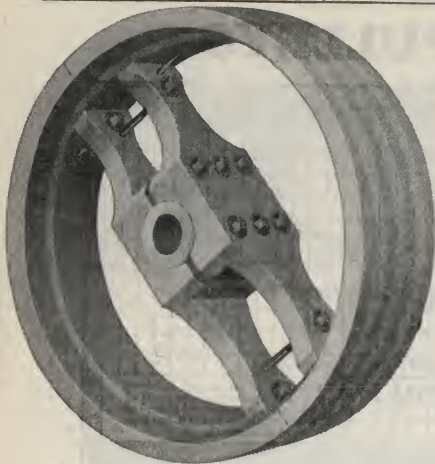
### HOW TO ORDER. Give information as follows:

1. Number of pulleys wanted.
  2. Diameter of pulley.
  3. Total width of face.
  4. Width of belt to be used.
  5. Exact bore or shaft diameter. \*See note.
  6. Width of keyseat in shaft.
  7. Depth of keyseat in pulley.
  8. Length of hub or shaft projection.
  9. Distance from end of hub to edge of rim.
  10. Least allowable inside rim dimension.
  11. Kind of face—crown, straight, double crown, etc. If double crown, give location of faces relative to hub.
  12. State on what machine pulley is to be used and name of maker. If electric motor give type of motor, horsepower, revolutions per minute and frame number.
- \*Standard BORES are 8ths or 16ths within the bore range as shown. There is an extra charge for 32nds, 64ths, etc. within the range shown as these sizes will have to be made special.
- IMPORTANT.** Not to be used as Separator Pulleys. Separator Pulley Prices on Application.

## ★ NET PRICES EACH

Diam-eter	Total Face	Belt Width	*Bores, Inch	★ NET EACH	Diam-eter	Total Face	Belt Width	*Bores, Inch	★ NET EACH	Diam-eter	Total Face	Belt Width	*Bores, Inch	★ NET EACH
1 1/4	1 3/4	1 1/2	1/2 to 3/4	\$1.32	6	2 1/2	2	5/8 to 1 1/4	\$3.17	11	3 1/2	3	1 to 1 1/2	\$6.19
1 1/2	2 1/2	2	1/2 to 3/4	\$1.42	6	3 1/2	3	5/8 to 1 1/4	\$3.47	11	4 1/2	4	1 to 1 1/2	\$6.83
2	3 1/4	2 1/2	1/2 to 3/4	\$1.47	6	4 1/2	4	5/8 to 1 1/4	\$3.85	11	5 1/2	5	1 1/4 to 2 1/4	\$7.49
2 1/2	4 1/4	3	1/2 to 3/4	\$1.67	6	5 1/2	5	5/8 to 1 1/4	\$4.22	11	6 1/2	6	1 1/4 to 2 1/4	\$8.14
2 3/4	5 1/4	3 1/2	1/2 to 3/4	\$1.87	6	6 1/2	6	5/8 to 1 1/4	\$4.65	11	7 1/2	7	1 1/4 to 2 1/4	\$8.81
3	6 1/4	4	1/2 to 3/4	\$2.08	6	7 1/2	7	5/8 to 1 1/4	\$5.13	11	8 1/2	8	1 1/4 to 2 1/4	\$9.51
3 1/2	7 1/4	4 1/2	1/2 to 3/4	\$2.28	6	8 1/2	8	5/8 to 1 1/4	\$5.66	11	9 1/2	9	1 1/4 to 2 1/4	\$10.32
3 3/4	8 1/4	5	1/2 to 3/4	\$2.48	6	9 1/2	9	5/8 to 1 1/4	\$6.24	11	10 1/2	10	1 1/4 to 2 1/4	\$11.21
4	9 1/4	5 1/2	1/2 to 3/4	\$2.68	7	10 1/2	10	5/8 to 1 1/4	\$6.82	11	11 1/2	11	1 1/4 to 2 1/4	\$12.48
4 1/2	10 1/4	6	1/2 to 3/4	\$2.88	7	11 1/2	11	5/8 to 1 1/4	\$7.40	11	12 1/2	12	1 1/4 to 2 1/4	\$13.84
4 3/4	11 1/4	6 1/2	1/2 to 3/4	\$3.08	7	12 1/2	12	5/8 to 1 1/4	\$8.00	12	13 1/2	13	1 1/4 to 2 1/4	\$15.45
5	12 1/4	7	1/2 to 3/4	\$3.28	8	13 1/2	13	5/8 to 1 1/4	\$8.60	12	14 1/2	14	1 1/4 to 2 1/4	\$17.06
5 1/2	13 1/4	7 1/2	1/2 to 3/4	\$3.48	8	14 1/2	14	5/8 to 1 1/4	\$9.20	12	15 1/2	15	1 1/4 to 2 1/4	\$18.67
5 3/4	14 1/4	8	1/2 to 3/4	\$3.68	8	15 1/2	15	5/8 to 1 1/4	\$9.80	12	16 1/2	16	1 1/4 to 2 1/4	\$20.28
6	15 1/4	8 1/2	1/2 to 3/4	\$3.88	8	16 1/2	16	5/8 to 1 1/4	\$10.40	12	17 1/2	17	1 1/4 to 2 1/4	\$21.89
6 1/2	16 1/4	9	1/2 to 3/4	\$4.08	8	17 1/2	17	5/8 to 1 1/4	\$11.00	12	18 1/2	18	1 1/4 to 2 1/4	\$23.50
6 3/4	17 1/4	9 1/2	1/2 to 3/4	\$4.28	8	18 1/2	18	5/8 to 1 1/4	\$11.60	12	19 1/2	19	1 1/4 to 2 1/4	\$25.11
7	18 1/4	10	1/2 to 3/4	\$4.48	8	19 1/2	19	5/8 to 1 1/4	\$12.20	12	20 1/2	20	1 1/4 to 2 1/4	\$26.72
7 1/2	19 1/4	10 1/2	1/2 to 3/4	\$4.68	8	20 1/2	20	5/8 to 1 1/4	\$12.80	12	21 1/2	21	1 1/4 to 2 1/4	\$28.33
7 3/4	20 1/4	11	1/2 to 3/4	\$4.88	8	21 1/2	21	5/8 to 1 1/4	\$13.40	12	22 1/2	22	1 1/4 to 2 1/4	\$29.94
8	21 1/4	11 1/2	1/2 to 3/4	\$5.08	8	22 1/2	22	5/8 to 1 1/4	\$14.00	12	23 1/2	23	1 1/4 to 2 1/4	\$31.55
8 1/2	22 1/4	12	1/2 to 3/4	\$5.28	8	23 1/2	23	5/8 to 1 1/4	\$14.60	12	24 1/2	24	1 1/4 to 2 1/4	\$33.16
8 3/4	23 1/4	12 1/2	1/2 to 3/4	\$5.48	8	24 1/2	24	5/8 to 1 1/4	\$15.20	12	25 1/2	25	1 1/4 to 2 1/4	\$34.77
9	24 1/4	13	1/2 to 3/4	\$5.68	8	25 1/2	25	5/8 to 1 1/4	\$15.80	12	26 1/2	26	1 1/4 to 2 1/4	\$36.38
9 1/2	25 1/4	13 1/2	1/2 to 3/4	\$5.88	8	26 1/2	26	5/8 to 1 1/4	\$16.40	12	27 1/2	27	1 1/4 to 2 1/4	\$37.99
9 3/4	26 1/4	14	1/2 to 3/4	\$6.08	8	27 1/2	27	5/8 to 1 1/4	\$17.00	12	28 1/2	28	1 1/4 to 2 1/4	\$39.60
10	27 1/4	14 1/2	1/2 to 3/4	\$6.28	8	28 1/2	28	5/8 to 1 1/4	\$17.60	12	29 1/2	29	1 1/4 to 2 1/4	\$41.21
10 1/2	28 1/4	15	1/2 to 3/4	\$6.48	8	29 1/2	29	5/8 to 1 1/4	\$18.20	12	30 1/2	30	1 1/4 to 2 1/4	\$42.82
10 3/4	29 1/4	15 1/2	1/2 to 3/4	\$6.68	8	30 1/2	30	5/8 to 1 1/4	\$18.80	12	31 1/2	31	1 1/4 to 2 1/4	\$44.43
11	30 1/4	16	1/2 to 3/4	\$6.88	8	31 1/2	31	5/8 to 1 1/4	\$19.40	12	32 1/2	32	1 1/4 to 2 1/4	\$46.04
11 1/2	31 1/4	16 1/2	1/2 to 3/4	\$7.08	8	32 1/2	32	5/8 to 1 1/4	\$20.00	12	33 1/2	33	1 1/4 to 2 1/4	\$47.65
11 3/4	32 1/4	17	1/2 to 3/4	\$7.28	8	33 1/2	33	5/8 to 1 1/4	\$20.60	12	34 1/2	34	1 1/4 to 2 1/4	\$49.26
12	33 1/4	17 1/2	1/2 to 3/4	\$7.48	8	34 1/2	34	5/8 to 1 1/4	\$21.20	12	35 1/2	35	1 1/4 to 2 1/4	\$50.87
12 1/2	34 1/4	18	1/2 to 3/4	\$7.68	8	35 1/2	35	5/8 to 1 1/4	\$21.80	12	36 1/2	36	1 1/4 to 2 1/4	\$52.48
12 3/4	35 1/4	18 1/2	1/2 to 3/4	\$7.88	8	36 1/2	36	5/8 to 1 1/4	\$22.40	12	37 1/2	37	1 1/4 to 2 1/4	\$54.09
13	36 1/4	19	1/2 to 3/4	\$8.08	8	37 1/2	37	5/8 to 1 1/4	\$23.00	12	38 1/2	38	1 1/4 to 2 1/4	\$55.70
13 1/2	37 1/4	19 1/2	1/2 to 3/4	\$8.28	8	38 1/2	38	5/8 to 1 1/4	\$23.60	12	39 1/2	39	1 1/4 to 2 1/4	\$57.31
13 3/4	38 1/4	20	1/2 to 3/4	\$8.48	8	39 1/2	39	5/8 to 1 1/4	\$24.20	12	40 1/2	40	1 1/4 to 2 1/4	\$58.92
14	39 1/4	20 1/2	1/2 to 3/4	\$8.68	8	40 1/2	40	5/8 to 1 1/4	\$24.80	12	41 1/2	41	1 1/4 to 2 1/4	\$60.53
14 1/2	40 1/4	21	1/2 to 3/4	\$8.88	8	41 1/2	41	5/8 to 1 1/4	\$25.40	12	42 1/2	42	1 1/4 to 2 1/4	\$62.14
14 3/4	41 1/4	21 1/2	1/2 to 3/4	\$9.08	8	42 1/2	42	5/8 to 1 1/4	\$26.00	12	43 1/2	43	1 1/4 to 2 1/4	\$63.75
15	42 1/4	22	1/2 to 3/4	\$9.28	8	43 1/2	43	5/8 to 1 1/4	\$26.60	12	44 1/2	44	1 1/4 to 2 1/4	\$65.36
15 1/2	43 1/4	22 1/2	1/2 to 3/4	\$9.48	8	44 1/2	44	5/8 to 1 1/4	\$27.20	12	45 1/2	45	1 1/4 to 2 1/4	\$66.97
15 3/4	44 1/4	23	1/2 to 3/4	\$9.68	8	45 1/2	45	5/8 to 1 1/4	\$27.80	12	46 1/2	46	1 1/4 to 2 1/4	\$68.58
16	45 1/4	23 1/2	1/2 to 3/4	\$9.88	8	46 1/2	46	5/8 to 1 1/4	\$28.40	12	47 1/2	47	1 1/4 to 2 1/4	\$70.19
16 1/2	46 1/4	24	1/2 to 3/4	\$10.08	8	47 1/2	47	5/8 to 1 1/4	\$29.00	12	48 1/2	48	1 1/4 to 2 1/4	\$71.80
16 3/4	47 1/4	24 1/2	1/2 to 3/4	\$10.28	8	48 1/2	48	5/8 to 1 1/4	\$29.60	12	49 1/2	49	1 1/4 to 2 1/4	\$73.41
17	48 1/4	25	1/2 to 3/4	\$10.48	8	49 1/2	49	5/8 to 1 1/4	\$30.20	12	50 1/2	50	1 1/4 to 2 1/4	\$75.02
17 1/2	49 1/4	25 1/2	1/2 to 3/4	\$10.68	8	50 1/2	50	5/8 to 1 1/4	\$30.80	12	51 1/2	51	1 1/4 to 2 1/4	\$76.63
17 3/4	50 1/4	26	1/2 to 3/4	\$10.88	8	51 1/2	51	5/8 to 1 1/4	\$31.40	12	52 1/2	52	1 1/4 to 2 1/4	\$78.24
18	51 1/4	26 1/2	1/2 to 3/4	\$11.08	8	52 1/2	52	5/8 to 1 1/4	\$32.00	12	53 1/2	53	1 1/4 to 2 1/4	\$79.85
18 1/2	52 1/4	27	1/2 to 3/4	\$11.28	8	53 1/2	53	5/8 to 1 1/4	\$32.60	12	54 1/2	54	1 1/4 to 2 1/4	\$81.46
18 3/4	53 1/4	27 1/2	1/2 to 3/4	\$11.48	8	54 1/2	54	5/8 to 1 1/4	\$33.20	12	55 1/2	55	1 1/4 to 2 1/4	\$83.07
19	54 1/4	28	1/2 to 3/4	\$11.68	8	55 1/2	55	5/8 to 1 1/4	\$33.80	12	56 1/2	56	1 1/4 to 2 1/4	\$84.68
19 1/2	55 1/4	28 1/2	1/2 to 3/4	\$11.88	8	56 1/2	56	5/8 to 1 1/4	\$34.40	12	57 1/2	57	1 1/4 to 2 1/4	\$86.29
19 3/4	56 1/4	29	1/2 to 3/4	\$12.08	8	57 1/2	57	5/8 to 1 1/4	\$35.00	12	58 1/2	58	1 1/4 to 2 1/4	\$87.90
20	57 1/4	29 1/2	1/2 to 3/4	\$12.28	8	58 1/2	58	5/8 to 1 1/4	\$35.60	12	59 1/2	59	1 1/4 to 2 1/4	\$89.51
20 1/2	58 1/4	30	1/2 to 3/4	\$12.48	8	59 1/2	59	5/8 to 1 1/4	\$36.20	12	60 1/2	60	1 1/4 to 2 1/4	\$91.12
20 3/4	59 1/4	30 1/2	1/2 to 3/4	\$12.68	8	60 1/2	60	5/8 to 1 1/4	\$36.80	12	61 1/2	61	1 1/4 to 2 1/4	\$92.73
21	60 1/4	31	1/2 to 3/4	\$12.88	8	61 1/2	61	5/8 to 1 1/4	\$37.40	12	62 1/2	62	1 1/4 to 2 1/4	\$94.34
21 1/2	61 1/4	31 1/2	1/2 to 3/4	\$13.08	8	62 1/2	62	5/8 to 1 1/4	\$38.00	12	63 1/2	63	1 1/4 to 2 1/4	\$95.95
21 3/4	62 1/4	32	1/2 to 3/4	\$13.28	8	63 1/2	63	5/8 to 1 1/4	\$38.60	12	64 1/2	64	1 1/4 to 2 1/4	\$97.56
22	63 1/4	32 1/2	1/2 to 3/4	\$13.48	8	64 1/2	64	5/8 to 1 1/4	\$39.20	12	65 1/2	65	1 1/4 to 2 1/4	\$99.17
22 1/2	64 1/4	33	1/2 to 3/4	\$13.68	8	65 1/2	65	5/8 to 1 1/4	\$39.80	12	66 1/2	66	1 1/4 to 2 1/4	\$100.78
22 3/4	65 1/4	33 1/2	1/2 to 3/4	\$13.88	8	66 1/2	66	5/8 to 1 1/4	\$40.40	12	67 1/2	67	1 1/4 to 2 1/4	\$102.39
23	66 1/4	34	1/2 to 3/4	\$14.08	8	67 1/2	67	5/8 to 1 1/4	\$41.00	12	68 1/2	68	1 1/4 to 2 1/4	\$104.00
23 1/2	67 1/4	34 1/2	1/2 to 3/4	\$14.28	8	68 1/2	68	5/8 to 1 1/4	\$41.60	12	69 1/2	69	1 1/4 to 2 1/4	\$105.61
23 3/4	68 1/4	35	1/2 to 3/4	\$14.48	8	69 1/2	69	5/8 to 1 1/4	\$42.20	12	70 1/2	70	1 1/4 to 2 1/4	\$107.22
24	69 1/4	35 1/2	1/2 to 3/4	\$14.68	8	70 1/2	70	5/8 to 1 1/4	\$42.80	12	71 1/2	71	1 1/4 to 2 1/4	\$108.83
24 1/2	70 1/4	36	1/2 to 3/4	\$14.88	8	71 1/2	71	5/8 to 1 1/4	\$43.40	12	72 1/2	72	1 1/4 to 2 1/4	\$110.44
24 3/4	71 1/4	36 1/2	1/2 to 3/4	\$15.08	8	72 1/2	72	5/8 to 1 1/4	\$44.00	12	73 1/2	73	1 1/4 to 2 1/4	\$112.05
25	72 1/4	37	1/2 to 3/4	\$15.28	8	73 1/2	73	5/8 to 1 1/4	\$44.60	12	74 1/2	74	1 1/4 to 2 1/4	\$113.66
25 1/2	73 1/4	37 1/2	1/2 to 3/4	\$15.48	8	74 1/2	74	5/8 to 1 1/4	\$45.20	12	75 1/2	75	1 1/4 to 2 1/4	\$115.27
25 3/4	74 1/4	38	1/2 to 3/4	\$15.68	8	75 1/2	75	5/8 to 1 1/4	\$45.80	12	76 1/2	76	1 1/4 to 2 1/4	\$116.88
26	75 1/4	38 1/2	1/2 to 3/4	\$15.88	8	76 1/2	76	5/8 to 1 1/4	\$46.40	12	77 1/2	77	1 1/4 to 2 1/4	\$118.49
26 1/2	76 1/4	39	1/2 to 3/4	\$16.08	8	77 1/2	77	5/8 to 1 1/4	\$47.00	12	78 1/2	78	1 1/4 to 2 1/4	\$120.10
26 3/4	77 1/4	39 1/2	1/2 to 3/4	\$16.28	8	78 1/2	78	5/8 to 1 1/4	\$47.60	12	79 1/2	79	1 1/4 to 2 1/4	\$121.71
27	78 1/4	40	1/2 to 3/4	\$16.48	8	79 1/2	79	5/8 to 1 1/4	\$48.20	12	80 1/2	80	1 1/4 to 2 1/4	\$123.32
27 1/2	79 1/4	40 1/2	1/2 to 3/4	\$16.68	8	80 1/2	80	5/8 to 1 1/4	\$48.80					





## DODGE WOOD SPLIT PULLEYS

Fig. 637

These pulleys are substantial in construction and well finished. The rims are made of maple or sap gum, thoroughly seasoned and kiln dried. The segments forming the pulleys are glued together under heavy pressure, forming joints which are stronger than the wood itself. The rims are turned inside and out, insuring uniform thickness. This puts them in absolute balance.

THE ARMS are made of clear kiln dried maple and are dovetailed into the rim, both glued and anchored securely by bolts. The flexible arm construction gives the greatest and most uniform compression on the shaft.

THE FACE of these pulleys is specially treated, giving them an extraordinary serviceable finish.

The maple bushing, one of which is furnished with each pulley, is accurately turned and bored, and will cause the pulley to run absolutely true.

### STANDARD BORES

3 inch diameter.....	1 1/2 inch bore	50 inch to 72 inch diameter.....	4 1/2 inch bore
4 inch diameter.....	2 inch bore	72 inch diameter, up to 12 in. face..	4 1/2 inch bore
5 inch to 7 inch diameter.....	2 7/16 inch bore	72 inch diameter, 13 in. face and up.	6 inch bore
8 inch to 23 inch diameter.....	3 inch bore	73 inch to 96 inch diameter.....	6 inch bore
24 inch to 48 inch diameter.....	3 1/2 inch bore	97 inch to 120 inch diameter.....	6 1/2 inch bore

### STANDARD LIST PRICES Adopted Dec. 19th, 1908

Width of Face, Inches														
Diam., Inches	3	4	5	6	8	10	12	14	16	18	20	22	24	
3	\$2.80	\$2.90	\$3.10	\$3.30	\$3.70	\$4.10	\$4.50							
4	2.80	2.90	3.10	3.30	3.70	4.10	4.50							
5	2.85	2.95	3.20	3.40	3.85	4.30	4.75							
6	2.90	3.00	3.25	3.50	4.00	4.50	5.00							
7	2.95	3.05	3.35	3.60	4.15	4.70	5.25							
8	3.00	3.10	3.40	3.70	4.30	4.90	5.50	\$5.80						
9	3.10	3.25	3.60	3.90	4.55	5.20	5.85	6.10						
								6.50						
10	3.25	3.40	3.75	4.10	4.80	5.50	6.20	6.90	\$7.60					
11	3.50	3.70	4.10	4.50	5.30	6.10	6.90	7.70	8.50					
12	3.75	4.00	4.45	4.90	5.80	6.70	7.60	8.50	9.40	\$10.30				
13		4.30	4.80	5.30	6.30	7.30	8.30	9.30	10.30	11.30				
14		4.60	5.15	5.70	6.80	7.90	9.00	10.10	11.20	12.30	\$13.40			
15		4.90	5.50	6.10	7.30	8.50	9.70	10.90	12.10	13.30	14.50			
16		5.20	5.85	6.50	7.80	9.10	10.40	11.70	13.00	14.30	15.60	\$16.90		
17		5.50	6.20	6.90	8.30	9.70	11.10	12.50	13.90	15.30	16.70	18.10		
18		5.80	6.55	7.30	8.80	10.30	11.80	13.30	14.80	16.30	17.80	19.30	\$20.80	
19		6.10	6.90	7.70	9.30	10.90	12.50	14.10	15.70	17.30	18.90	20.50	22.10	
20		6.40	7.25	8.10	9.80	11.50	13.20	14.90	16.60	18.30	20.00	21.70	23.40	
22		7.00	7.95	8.90	10.80	12.70	14.60	16.50	18.40	20.30	22.20	24.10	26.00	
24		7.70	8.80	9.90	12.10	14.30	16.50	18.70	20.90	23.10	25.30	27.50	29.70	
26		8.40	9.65	10.90	13.40	15.90	18.40	20.90	23.40	25.90	28.40	30.90	33.40	
28		9.10	10.50	11.90	14.70	17.50	20.30	23.10	25.90	28.70	31.50	34.30	37.10	
30		9.80	11.35	12.90	16.00	19.10	22.20	25.30	28.40	31.50	34.60	37.70	40.80	
32		10.50	12.20	13.90	17.30	20.70	24.10	27.50	30.90	34.30	37.70	41.10	44.50	
34		11.30	13.15	15.00	18.70	22.40	26.10	29.80	33.50	37.20	40.90	44.60	48.30	
36		12.10	14.10	16.10	20.10	24.10	28.10	32.10	36.10	40.10	44.10	48.10	52.10	
38				17.20	21.50	25.80	30.10	34.40	38.70	43.00	47.30	51.60	55.90	
40				18.30	22.90	27.50	32.10	36.70	41.30	45.90	50.50	55.10	59.70	
42				19.60	24.60	29.60	34.60	39.60	44.60	49.60	54.60	59.60	64.60	
44				20.90	26.30	31.70	37.10	42.50	47.90	53.30	58.70	64.10	69.50	
46				22.30	28.10	33.90	39.70	45.50	51.30	57.10	62.90	68.70	74.50	
48				23.80	30.00	36.20	42.40	48.60	54.80	61.00	67.20	73.40	79.60	
50				25.40	32.00	38.60	45.20	51.80	58.40	65.00	71.60	78.20	84.80	
52				27.10	34.10	41.10	48.10	55.10	62.10	69.10	76.10	83.10	90.10	
54				28.90	36.30	43.70	51.10	58.50	65.90	73.30	80.70	88.10	95.50	
56				30.80	38.60	46.40	54.20	62.00	69.80	77.60	85.40	93.20	101.00	
58				32.80	41.00	49.20	57.40	65.60	73.80	82.00	90.20	98.40	106.60	
60				34.90	43.50	52.10	60.70	69.30	77.90	86.50	95.10	103.70	112.30	
62				37.10	46.10	55.10	64.10	73.10	82.10	91.10	100.10	109.10	118.10	
64				39.40	48.80	58.20	67.60	77.00	86.40	95.80	105.20	114.60	124.00	
66				41.90	51.80	61.70	71.60	81.50	91.40	101.30	111.20	121.10	131.00	
68				44.50	54.90	65.30	75.70	86.10	96.50	106.90	117.30	127.70	138.10	
70				47.20	58.10	69.00	79.90	90.80	101.70	112.60	123.50	134.40	145.30	
72				50.00	61.40	72.80	84.20	95.60	107.00	118.40	129.80	141.20	152.60	

**DISCOUNT**

(Also applies to Wood Bushings, page 101)..... **25-10% OFF**



# WOOD SPLIT PULLEYS—List Extra for Extra Large Bores

The following table shows the percentage to be added to regular list for extra large bores.

Pulley Diameter, Inches	BORE IN INCHES					
Under 12	3 <sup>3</sup> / <sub>16</sub> to 4	4 <sup>1</sup> / <sub>16</sub> to 5	5 <sup>1</sup> / <sub>16</sub> to 6	.....	.....	.....
12 to 48	4 <sup>1</sup> / <sub>16</sub> to 4 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>16</sub> to 6	6 <sup>1</sup> / <sub>16</sub> to 7 <sup>1</sup> / <sub>2</sub>	7 <sup>9</sup> / <sub>16</sub> to 10	.....	.....
49 to 72	5 <sup>1</sup> / <sub>16</sub> to 6	6 <sup>3</sup> / <sub>16</sub> to 7 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>16</sub> to 9 <sup>1</sup> / <sub>2</sub>	9 <sup>9</sup> / <sub>16</sub> to 12	12 <sup>1</sup> / <sub>16</sub> to 15	15 <sup>1</sup> / <sub>16</sub> to 18
73 to 96	7 <sup>1</sup> / <sub>16</sub> to 8	8 <sup>1</sup> / <sub>16</sub> to 10	10 <sup>1</sup> / <sub>16</sub> to 12	12 <sup>1</sup> / <sub>16</sub> to 15	15 <sup>1</sup> / <sub>16</sub> to 18	18 <sup>1</sup> / <sub>16</sub> to 21
97 to 120	9 <sup>1</sup> / <sub>16</sub> to 10	10 <sup>1</sup> / <sub>16</sub> to 12 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>16</sub> to 15	15 <sup>1</sup> / <sub>16</sub> to 18	18 <sup>1</sup> / <sub>16</sub> to 21	21 <sup>1</sup> / <sub>16</sub> to 25
Price....	L+15%	L+20%	L+25%	L+35%	L+50%	L+65%

## List Extra for Special Bores

Add 10% to regular list for boring pulleys to fit shaft when bore is less than standard or for boring pulleys larger than standard but smaller than extra large bores shown in the table above.

## Odd Diameters and Faces

Fractions of inch, and odd inches not listed, charged at next larger diameter or next wider face, respectively.

## To Determine Size and Speed of Pulleys and Gears

The driving pulley is called the Driver, and the driven pulley the Driven.

If the number of teeth in gears is used instead of diameter, in these calculations, number of teeth must be substituted wherever diameter occurs.

To determine the diameter of Driver, the distance of the Driven and its revolutions, and revolutions of Driver being given:

$$\frac{\text{Diameter of Driven} \times \text{revolutions of Driven}}{\text{revolutions of Driver}} = \text{diameter of Driver.}$$

To determine the diameter of Driven, the revolutions of the Driven and diameter and revolutions of the Driver being given:

$$\frac{\text{Diameter of Driver} \times \text{revolutions of Driver}}{\text{revolutions of Driven}} = \text{diameter of Driven.}$$

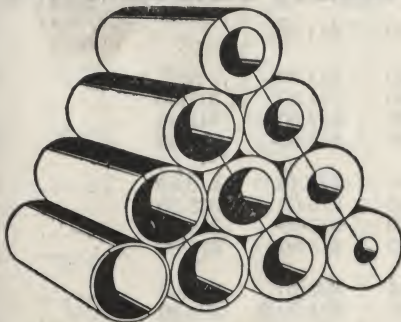
To determine the diameter of Driver, the diameter of the Driven and revolutions of the Driven, and the diameter of the Driver being given:

$$\frac{\text{Diameter of Driven} \times \text{revolutions of Driven}}{\text{diameter of Driver}} = \text{revolutions of Driver.}$$

To determine the revolutions of the Driven, the diameter and revolutions of the Driver, and diameter of the Driven being given:

$$\frac{\text{Diameter of Driver} \times \text{revolutions of Driver}}{\text{diameter of Driven}} = \text{revolutions of Driven.}$$

## WOOD BUSHINGS FOR WOOD SPLIT PULLEYS



In ordering Bushings please note: Bushings will be furnished bored to suit any shaft size up to the maximum in each case.

An order for a Bushing should read: (1) BORE, (2) DIAMETER, (3) LENGTH.

Std. Bore of

Pulleys, Ins... 1<sup>1</sup>/<sub>2</sub> 2 2<sup>7</sup>/<sub>16</sub> 3 3<sup>1</sup>/<sub>2</sub> 4<sup>1</sup>/<sub>2</sub>

Maximum Bore of

Bushing, Ins... 1<sup>3</sup>/<sub>8</sub> 1<sup>7</sup>/<sub>8</sub> 2<sup>5</sup>/<sub>16</sub> 2<sup>7</sup>/<sub>8</sub> 3<sup>3</sup>/<sub>8</sub> 4<sup>3</sup>/<sub>8</sub>

## LIST PRICES PER BUSHING (2 PCS.)

O. D. of Bushing, In.	1 <sup>1</sup> / <sub>2</sub> In.	2 In.	2 <sup>7</sup> / <sub>16</sub> In.	3 In.	3 <sup>1</sup> / <sub>2</sub> In.	4 <sup>1</sup> / <sub>2</sub> In.
Lgth. 6 in.	\$0.20	\$0.20	\$0.30	\$0.40	\$0.50	\$0.70
Lgth. 8 in.	.30	.30	.40	.55	.65	.95
Lgth. 10 in.	.40	.40	.50	.70	.85	1.20
Lgth. 12 in.	.50	.50	.60	.80	1.00	1.40
Lgth. 14 in.	.60	.60	.70	.95	1.15	1.65
Lgth. 16 in.	.70	.70	.80	1.10	1.30	1.90
Lgth. 18 in.	.80	.80	.90	1.20	1.50	2.10
Lgth. 20 in.	.90	.90	1.00	1.40	1.70	2.40

**DISCOUNT.....25-10% OFF**

Note—Bushings having special outside diameters are special—prices on application.

## WOOD SPLIT PULLEY WEIGHTS

Approximate Weights in Pounds, Bushings not Included

Face, In.	2	3	4	5	6	7	8	9	10	12	14	16
Diam., In.												
3	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>8</sub>	1	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>		1 <sup>3</sup> / <sub>4</sub>			
4	3 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	2	2 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>			
5	1	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	3	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>		
6	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	4	4 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	6	7 <sup>1</sup> / <sub>4</sub>		
7	2	2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	5	5 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	7	8 <sup>1</sup> / <sub>4</sub>	9		
8	2 <sup>3</sup> / <sub>4</sub>	3	4 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	12		
9	3	3 <sup>1</sup> / <sub>2</sub>	5	5 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8	9 <sup>1</sup> / <sub>4</sub>	11	12		
10	3 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	6	7 <sup>1</sup> / <sub>2</sub>	9	10	12	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	17	19 <sup>1</sup> / <sub>2</sub>
11	3 <sup>3</sup> / <sub>4</sub>	5	6	7	8	10	11	13	15 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>2</sub>	24
12	5	5 <sup>1</sup> / <sub>4</sub>	8	9 <sup>1</sup> / <sub>4</sub>	11	13 <sup>1</sup> / <sub>2</sub>	15	16	18	22 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>2</sub>	30
13	6	6 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	10	12	14	16	18	20	25 <sup>1</sup> / <sub>2</sub>	27 <sup>1</sup> / <sub>2</sub>	33
14		7	9	10 <sup>1</sup> / <sub>2</sub>	13	15	17 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>	20	28 <sup>1</sup> / <sub>2</sub>	31	35
15		9	11	13	16	18 <sup>1</sup> / <sub>2</sub>	20	25	26 <sup>1</sup> / <sub>2</sub>	32	37	42
16		10	13	15 <sup>1</sup> / <sub>2</sub>	17	21 <sup>1</sup> / <sub>2</sub>	22	26	27 <sup>1</sup> / <sub>2</sub>	33	40	47
17		10 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>2</sub>	16	20	22	24	28 <sup>1</sup> / <sub>2</sub>	30	39	44	54
18		11 <sup>1</sup> / <sub>2</sub>	15	17	20 <sup>1</sup> / <sub>2</sub>	23	26	30	33	39	46	57
19		12	15 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>2</sub>	22	25	26 <sup>1</sup> / <sub>2</sub>	32	34	44	47	59
20		13 <sup>1</sup> / <sub>2</sub>	16	20	23	27	30	36	37	48	55	61
21		14	18	22	24	30	32	37	42	49	56	69
22		16	19	23	26	31	33	39	43	51	60	72
23		17	20	24	28 <sup>1</sup> / <sub>2</sub>	33	34	40	45	55	62	73
24		18	22	25	31	36	38	41	46	56	69	87
25		20	23	27	33	38	41	46	50	66	82	88
26		20 <sup>1</sup> / <sub>2</sub>	24	28	34	39	42	49	55	71	83	93
27		21	26	30	36	44	46	50	58	72	84	94
28		22	27	32	37	45	47	51	59	72	87	104
29		23	28	33	38	46	48	53	60	75	88	105
30		23 <sup>1</sup> / <sub>2</sub>	29 <sup>1</sup> / <sub>2</sub>	39	45	56	57	62	74	91	99	124
31		26	31	40	46	57	59	63	75	92	105	128
32		30	33	41	47	59	64	67	76	99	108	131
33		35	37	42	48	61	66	69	78	102	111	134
34		36	38	43	49	62	67	73	79	103	112	136
36		37	39	44	51	64	70	77	81	104	114	137
38		39	41	45	54	66	72	82	85	122	149	160
40			61	65	74	87	90	102	110	137	161	184
42			65	67	75	89	91	106	118	145	163	192
44			66	69	80	97	103	110	124	152	180	194
46			69	76	83	99	104	112	135	157	183	207
48			70	78	84	100	105	119	145	164	190	224



# AMERICAN PRESSED STEEL SPLIT PULLEYS

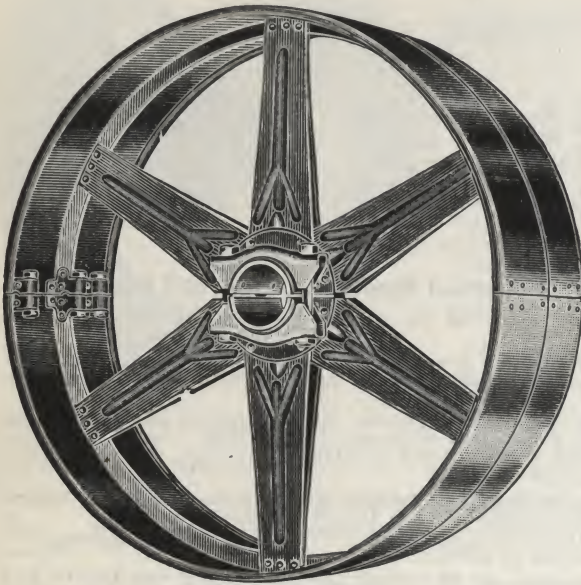


Fig. No. 645

These pulleys are made of the best grade of mild steel, the weight being about one-half of a cast-iron pulley, size for size.

Pressed steel pulleys are safe to run under high speeds and do not shrink, swell, warp or burn.

One of the merits these pulleys possess is that they will not fan at any speed, resulting from the narrow arms of the pulley, which cut the air instead of fanning it. List prices include one metal bushing.

## LIST EXTRAS FOR SPECIAL BORES

The following extra charge is to be added to the list for bores larger than standard.

Diam., In.	Face, In.	For 4 <sup>1</sup> / <sub>16</sub> Inch Bore	For 8 <sup>1</sup> / <sub>2</sub> Inch Bore
12-24	3-12	\$2.95	
12-24	12-16	4.38	
25-30	4-8	3.65	
32-36	4-6	3.65	
30-48	3-16	8.77	
36-48	3-16		\$13.15

## LIST EXTRAS FOR KEY SEATING

	Face, In.	2-5	2-12	3-16
Diam., 3-5 in.....		\$0.30		
Diam., 6-24 in.....			\$0.75	\$1.50
Diam., 25-48 in.....			.75	.75

## LIST EACH PULLEY—Revised list March 8, 1937

Diameter in Inches	FACE IN INCHES									
	2	3	4	5	6	8	10	12	14	16
3	\$4.56	\$4.80	\$5.04	.....	.....	.....	.....	.....	.....	.....
4	\$4.80	\$5.04	\$5.28	\$5.50	.....	.....	.....	.....	.....	.....
5	\$5.04	\$5.28	\$5.50	\$5.74	\$6.50	.....	.....	.....	.....	.....
6	\$6.30	\$6.60	\$6.90	\$7.50	\$8.10	.....	.....	.....	.....	.....
7	\$6.44	\$6.76	\$7.20	\$7.80	\$8.40	.....	.....	.....	.....	.....
8	\$6.60	\$6.90	\$7.50	\$8.10	\$8.70	\$9.90	\$11.20	.....	.....	.....
9	\$6.76	\$7.20	\$7.80	\$8.40	\$9.00	\$10.20	\$11.50	.....	.....	.....
10	\$6.90	\$7.50	\$8.10	\$8.70	\$9.30	\$10.50	\$11.80	\$12.90	.....	.....
11	\$7.30	\$7.80	\$8.40	\$9.00	\$9.60	\$10.80	\$12.00	\$13.80	.....	.....
12	\$7.80	\$8.40	\$9.26	\$9.60	\$10.66	\$11.56	\$12.90	\$15.30	.....	.....
13	\$8.10	\$8.70	\$9.60	\$10.40	\$11.24	\$12.86	\$14.40	\$16.80	.....	.....
14	\$8.20	\$9.00	\$10.40	\$11.30	\$12.30	\$14.10	\$16.06	\$18.00	.....	.....
15	\$8.70	\$9.30	\$10.90	\$11.60	\$13.10	\$15.30	\$17.60	\$19.50	.....	.....
16	\$9.00	\$9.90	\$11.50	\$12.20	\$13.80	\$16.50	\$18.90	\$21.00	.....	.....
17	.....	\$10.50	\$12.00	\$13.00	\$14.56	\$17.56	\$20.10	\$22.50	.....	.....
18	.....	\$11.10	\$12.76	\$14.00	\$15.30	\$18.60	\$21.30	\$24.00	.....	.....
19	.....	\$11.60	\$13.50	\$15.00	\$16.50	\$20.26	\$22.50	\$25.80	.....	.....
20	.....	\$12.00	\$15.00	\$16.20	\$18.00	\$21.46	\$24.00	\$28.50	.....	.....
21	.....	\$12.25	\$16.00	\$17.80	\$19.20	\$22.50	\$25.96	\$31.20	.....	.....
22	.....	\$13.00	\$17.10	\$19.00	\$20.56	\$24.00	\$28.20	\$33.60	.....	.....
23	.....	\$14.00	\$17.40	\$19.80	\$21.16	\$25.20	\$29.50	\$36.00	.....	.....
24	.....	\$15.00	\$17.80	\$20.00	\$21.90	\$26.40	\$31.36	\$38.10	.....	.....
26	.....	.....	\$19.10*	.....	\$23.90*	\$28.80*	\$34.20	\$42.60	\$52.50	\$62.40
28	.....	.....	\$21.60*	.....	\$25.80*	\$30.90*	\$36.30	\$45.80	\$57.00	\$69.00
30	.....	.....	\$24.00*	.....	\$28.20*	\$34.50*	\$39.80	\$49.50	\$63.00	\$76.20
32	.....	.....	\$26.40	.....	\$30.90	\$38.70	\$45.00	\$53.72	\$68.30	\$83.30
34	.....	.....	\$28.80	.....	\$34.50	\$43.50	\$51.00	\$60.00	\$73.50	\$90.00
36	.....	.....	\$31.80	.....	\$39.00	\$48.00	\$57.30	\$67.50	\$79.50	\$97.20
38	.....	.....	\$39.00	.....	\$43.50	\$52.80	\$62.10	\$74.30	\$85.50	\$103.50
40	.....	.....	\$42.00	.....	\$48.00	\$57.00	\$67.50	\$80.30	\$93.00	\$110.30
42	.....	.....	\$46.50	.....	\$52.50	\$64.50	\$75.00	\$87.00	\$100.50	\$115.50
44	.....	.....	.....	.....	\$58.50	\$71.24	\$82.50	\$94.50	\$108.00	\$122.24
46	.....	.....	.....	.....	\$66.00	\$78.00	\$90.00	\$100.50	\$115.50	\$129.00
48	.....	.....	.....	.....	\$73.50	\$84.00	\$97.50	\$108.00	\$123.00	\$135.00

## DISCOUNT

\*Note—These sizes subject to extra charge for bores larger than 3-7/16 inches. See above.

**45-5% OFF**



## WIDTHS OF SPLIT STEEL PULLEYS

ACTUAL WIDTHS OF PULLEYS ACROSS THE FACE

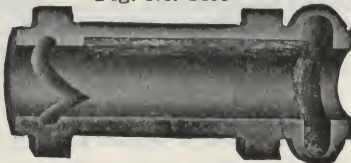
NOMINAL WIDTH

Face, Ins.	2	3	4	5	6	8	10	12	14	16
Diam., Ins.										
3	2 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>							
4 and 5	2 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>			
6 and 7	2 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>
8 and 9	2 <sup>11</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>
10 to 16	2 <sup>11</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>
17 to 19		3 <sup>11</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>
20 to 23		3 <sup>11</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>
24			3 <sup>11</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>
25 to 28			4 <sup>1</sup> / <sub>8</sub>		6 <sup>15</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	10 <sup>15</sup> / <sub>16</sub>	13	15 <sup>15</sup> / <sub>16</sub>	17 <sup>15</sup> / <sub>16</sub>
30			4 <sup>1</sup> / <sub>8</sub>		6 <sup>15</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	10 <sup>15</sup> / <sub>16</sub>	13	15 <sup>15</sup> / <sub>16</sub>	17 <sup>15</sup> / <sub>16</sub>
32 to 34			4 <sup>1</sup> / <sub>8</sub>		6 <sup>15</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	10 <sup>15</sup> / <sub>16</sub>	13	15 <sup>15</sup> / <sub>16</sub>	17 <sup>15</sup> / <sub>16</sub>
36 to 42			4 <sup>1</sup> / <sub>8</sub>		6 <sup>15</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	10 <sup>15</sup> / <sub>16</sub>	13	15 <sup>15</sup> / <sub>16</sub>	17 <sup>15</sup> / <sub>16</sub>
44 to 48					7 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>8</sub>

## ROBERTS' PATENT SELF-OILING LOOSE BUSHINGS (SOLID) For Pressed Steel Pulleys



Fig. No. 2439



Sectional View of Roberts Bushing

### LIST PRICES EACH BUSHING

Standard Out- side Diameter of Bushings Corresponding to Bore of Pulleys Inches	Inside Bore of Bushings, Inches	Length of Bushings Without Oil Chamber, Inches	Length Overall, Inches	For Pulley Face as Given in This Column, Inches	List Each
1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub> -1	2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2	\$1.75
		2 <sup>1</sup> / <sub>2</sub> †	3 <sup>1</sup> / <sub>2</sub>	3-4	2.00
1 <sup>5</sup> / <sub>8</sub>		2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2	2.00
2 <sup>1</sup> / <sub>2</sub> Hub	1 <sup>1</sup> / <sub>2</sub> -1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	3	2.25
		3 <sup>1</sup> / <sub>2</sub> *	4 <sup>1</sup> / <sub>2</sub>	4-5	2.50
1 <sup>15</sup> / <sub>8</sub> -3 <sup>1</sup> / <sub>2</sub> Hub	1 <sup>1</sup> / <sub>2</sub> -1 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub> *	5 <sup>5</sup> / <sub>8</sub>	5-6	3.40
		3 <sup>3</sup> / <sub>4</sub>	5	3	2.75
		4 <sup>5</sup> / <sub>8</sub> *	5 <sup>7</sup> / <sub>8</sub>	4	3.10
2 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub> -2	4 <sup>5</sup> / <sub>8</sub> *	5 <sup>7</sup> / <sub>8</sub>	5	3.40
		4 <sup>5</sup> / <sub>8</sub> *	5 <sup>7</sup> / <sub>8</sub>	6	3.40
		4 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	4	3.10
		5 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	5	3.65
2 <sup>15</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub> -2 <sup>1</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>8</sub> *	8 <sup>1</sup> / <sub>4</sub>	6	5.10
		6 <sup>7</sup> / <sub>8</sub> *	8 <sup>1</sup> / <sub>4</sub>	8-10	6.00

## DISCOUNT ..... 5% OFF

In sizes marked with \*, Collars are supplied to go between tight and loose pulleys. † Special Collar 1/2 inch wide.

Note: Bushings furnished for pulleys up to 4<sup>7</sup>/<sub>8</sub> inch bore—prices on application.

## AMATEUR SHAFTING COLLARS

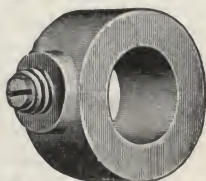


Fig. No. 2514

Fitted with headless set screws.

### ★ NET PRICES PER COLLAR

Size, In.	1/4	5/16	3/8	1/2	5/8	3/4
Net Each	15c	15c	15c	20c	25c	30c

## GROOVED IRON PULLEYS

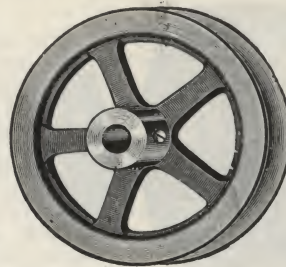


Fig. No. 2432

Fitted with headless set screw.

### For 1/4 and 3/8-Inch Round Belt

#### ★ NET PRICES PER PULLEY

Diam., In.	1	1 1/4	1 1/2	2	2 1/2	3
Bore 1/4 in.	\$0.50	\$0.55	\$0.60	\$0.70	\$0.80	\$1.00
Bore 3/8 in.	.50	.55	.60	.70	.80	1.00
Bore 1/2 in.	.50	.55	.60	.70	.80	1.00
Bore 3/4 in.	...	...	...	...	...	1.00

For Belt

Diam., in.	1/4	1/4	1/4	1/4	3/8	3/8
------------	-----	-----	-----	-----	-----	-----

### For 3/8-Inch Round Leather Belt

#### ★ NET PRICES PER PULLEY

Diam. in.	4	5	6	8	10	12
Bore 3/8 in.	\$1.25	\$1.50	\$1.75	....	....	....
Bore 1/2 in.	1.25	1.50	1.75	2.00	2.50	\$3.00
Bore 3/4 in.	1.25	1.50	1.75	2.00	2.50	3.00

## FLAT FACE PULLEYS

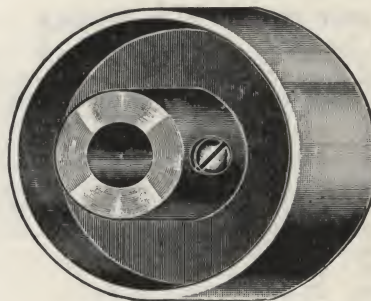


Fig. No. 2433

### 1-Inch Face

#### ★ NET PRICES PER PULLEY

Diam., In.	1 1/2	2	2 1/2	3	4
Bore 1/4 in.	\$0.60	\$0.70	\$0.80	....	....
Bore 3/8 in.	.60	.70	.80	....	....
Bore 1/2 in.	.60	.70	.80	\$0.90	\$1.00
Bore 3/4 in.	.60	.70	.80	.90	1.00
Bore 1 in.	...	...	...	.90	1.00

### 1 1/2-Inch Face

#### ★ NET PRICES PER PULLEY

Diam., In.	2	2 1/2	3	4	5	6
Bore 3/4 in.	\$0.80	\$1.00	\$1.20	\$1.40	....	....
Bore 1 in.	.80	1.00	1.20	1.40	\$1.75	\$2.25
Bore 1 1/4 in.	.80	1.00	1.20	1.40	1.75	2.25
Bore 1 1/2 in.	....	1.00	1.20	1.40	1.75	2.25
Bore 1 3/4 in.	....	....	....	....	1.75	2.25
Bore 2 in.	....	....	....	....	1.75	2.25

### 2-Inch Face

#### ★ NET PRICES PER PULLEY

Diam., In.	2	2 1/2	3	4	5	6
Bore 1 1/2 in.	\$1.00	\$1.25	\$1.50	\$2.00	\$2.50	\$3.00
Bore 1 3/4 in.	1.00	1.25	1.50	2.00	2.50	3.00
Bore 2 in.	1.00	1.25	1.50	2.00	2.50	3.00
Bore 2 1/4 in.	....	....	....	....	2.50	...
Bore 2 1/2 in.	....	....	....	....	2.50	...



## GASOLINE ENGINE CLUTCH PULLEYS

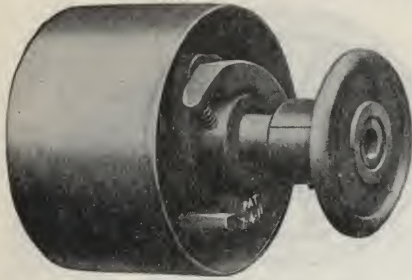


Fig. No. 2038

This is a clutch pulley which fully meets the requirements of gasoline engine work. Among its features are:

A long hub which is central with the pulley, not all on one side as on other makes. Result, long wearing life.

Simplicity—only eleven parts.

Easy to change pulleys when different speeds are required from same engine.

Self contained and ready to put on—just take off the old pulley and put the clutch pulley on.

**IMPORTANT:** When ordering specify: Horse power and speed of engine. Diameter of shaft and length projecting beyond the fly wheel hub. Width and depth of keyseat in shaft. If clutch is to be attached to fly wheel of engine instead of the crank shaft, give sketch showing fly wheel dimensions and the extension of the crank shaft.

### NO. 1 PULLEY

For 2½ H. P. engine, largest bore 1½ in., projection of crankshaft 2½ in. or over.

#### LIST PRICES PER PULLEY

Face width, ins.	4	5	6	8	10
Diam. 6 in.	\$21.65	\$22.20	\$22.85	.....	.....
Diam. 7 in.	22.05	22.70	23.40	.....	.....
Diam. 8 in.	22.50	23.15	23.85	.....	.....
Diam. 9 in.	22.95	.....	.....	.....	.....
Diam. 10 in.	23.60	.....	.....	.....	.....
Diam. 11 in.	24.05	.....	.....	.....	.....
Diam. 12 in.	24.50	.....	.....	.....	.....
Diam. 13 in.	24.95	.....	.....	.....	.....
Diam. 14 in.	25.50	.....	.....	.....	.....
Diam. 15 in.	26.00	.....	.....	.....	.....

### NO. 2 PULLEY

For 6 H. P. engine, largest bore 2½ in., projection of crankshaft 3 in. or over.

#### LIST PRICES PER PULLEY

Face width, ins.	4	5	6	8	10
Diam. 8 in.	\$26.75	\$27.40	\$28.10	.....	.....
Diam. 9 in.	27.20	27.95	28.70	\$30.35	.....
Diam. 10 in.	27.90	28.60	29.40	31.20	\$32.80
Diam. 11 in.	28.30	29.15	30.05	31.90	.....
Diam. 12 in.	28.80	29.70	30.65	32.70	34.85
Diam. 13 in.	29.20	30.20	31.25	33.40	35.75
Diam. 14 in.	29.75	30.90	32.00	34.40	36.90
Diam. 15 in.	30.30	31.50	32.70	35.20	37.90
Diam. 16 in.	31.10	32.30	33.60	.....	.....
Diam. 18 in.	32.40	33.80	35.20	.....	.....
Diam. 20 in.	33.60	35.20	36.90	.....	.....
Diam. 22 in.	35.75	37.55	39.40	.....	.....
Diam. 24 in.	37.20	39.20	41.30	.....	.....

### NO. 2½ PULLEY

For 8 H. P. engine, largest bore 2½ in., projection of crankshaft 3 in. or over.

#### LIST PRICES PER PULLEY

Face width, ins.	4	5	6	8	10
Diam. 9 in.	.....	.....	\$30.80	\$32.40	.....
Diam. 10 in.	.....	.....	31.50	33.25	.....
Diam. 11 in.	.....	.....	32.10	34.00	.....
Diam. 12 in.	.....	.....	32.70	34.75	\$36.90
Diam. 13 in.	.....	.....	33.30	35.50	37.80
Diam. 14 in.	.....	.....	34.10	36.50	38.95
Diam. 15 in.	.....	.....	34.75	37.30	40.00
Diam. 16 in.	.....	.....	35.65	38.30	41.05
Diam. 18 in.	\$34.45	\$35.90	37.30	40.30	43.45
Diam. 20 in.	35.65	37.30	38.95	42.40	.....
Diam. 22 in.	.....	.....	41.50	45.30	.....
Diam. 24 in.	39.25	41.30	43.40	47.65	.....
Diam. 26 in.	.....	43.10	45.40	50.10	.....
Diam. 28 in.	42.55	45.00	47.60	52.75	.....
Diam. 30 in.	.....	49.15	51.90	57.55	.....

**DISCOUNT 25% OFF**

### NO. 3 PULLEY

For 10 H. P. engine, largest bore 2¾ in., projection of crankshaft 3 in. or over.

#### LIST PRICES PER PULLEY

Face width, ins.	4	5	6	8	10
Diam. 16 in.	.....	.....	\$40.80	\$43.40	\$46.20
Diam. 18 in.	.....	.....	42.40	45.40	48.60
Diam. 20 in.	.....	.....	44.10	47.50	51.10
Diam. 22 in.	.....	.....	46.60	50.45	54.40
Diam. 24 in.	.....	\$46.40	48.50	52.80	.....
Diam. 26 in.	.....	.....	50.50	55.25	.....
Diam. 28 in.	.....	.....	52.70	57.95	.....
Diam. 30 in.	.....	.....	56.85	62.50	.....

### NO. 3A PULLEY

For 12 H. P. engine, largest bore 3 in., projection of crankshaft 3 in. or over.

#### LIST PRICES PER PULLEY

Face width, ins.	4	5	6	8	10
Diam. 20 in.	.....	.....	\$48.30	\$51.75	\$55.35
Diam. 22 in.	.....	.....	50.85	54.65	58.65
Diam. 24 in.	.....	.....	52.70	57.00	61.40
Diam. 26 in.	.....	.....	54.75	59.35	64.35
Diam. 28 in.	.....	.....	56.90	62.10	67.40
Diam. 30 in.	.....	.....	60.75	66.40	72.15

### NO. 3B PULLEY

For 15 H. P. engine, largest bore 3¾ in., projection of crankshaft 3 in. or over.

#### LIST PRICES PER PULLEY

Face width, ins.	4	5	6	8	10
Diam. 22 in.	.....	.....	.....	\$59.65	\$63.65
Diam. 24 in.	.....	.....	\$57.75	62.00	66.40
Diam. 26 in.	.....	.....	59.75	64.45	69.35
Diam. 28 in.	.....	.....	61.90	67.10	72.40
Diam. 30 in.	.....	.....	65.45	71.10	76.85

**DISCOUNT 25% OFF**

### CREAM SEPARATOR CLUTCH PULLEY



Fig. No. 2039

Best clutch on the market for separator work. Picks up the load gradually—no jerks. It performs the same functions as a ratchet clutch and is operated by simply tightening or loosening the hand wheel. Diameter 12 in., face 2 in. When ordering, state size bore desired.

★ NET EACH, \$4.25



# HIGH SPEED INTERNAL GRIP CLUTCH PULLEYS

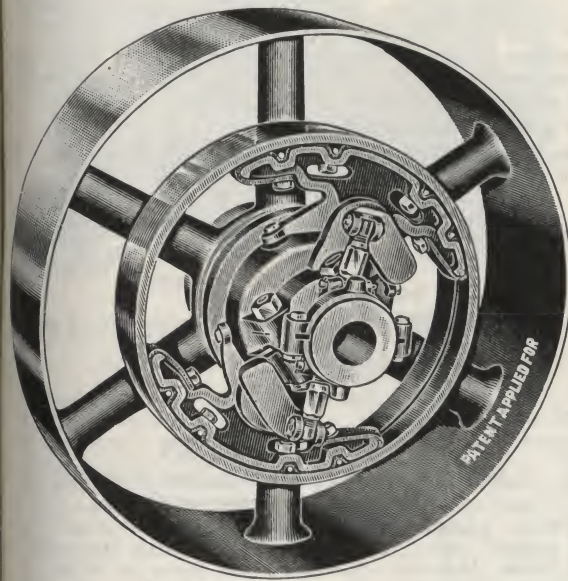


Fig. No. 2463

A high speed clutch with asbestos brake lining against cast iron for friction. This material does not burn at high speeds nor slip under load.

The friction surface, embracing nearly two-thirds of the circumference of friction ring, insures long life and great power.

The brake lining is clamped to the shoe by removable "T" bolts. These "T" bolts pull down the lining into the cross grooves in the shoes and hold it much firmer than do rivets.

The clutch requires little space on the shaft, is simple in construction and has but few parts. It is designed so that the brake lining absolutely clears the friction ring when clutch is disengaged.

The clutch may run at very high speeds, and when disengaged, centrifugal force does not cause it to engage again, as it is designed to counteract this force.

If clutch couplings or clutches with extended sleeves are required, prices will be quoted on application.

Prices as shown are for plain bore pulleys. Bronze bushings are extra.

For split clutch pulleys add 30%. For close balancing over 600 R. P. M., add 10%.

When ordering specify speed of clutch, horse power, and purpose for which clutch is to be used.

Note: On split clutches, where bore and horse power approach the maximum size listed, order next larger size clutch.

(New List, Jan. 1, 1924.)

## NO. 0 CLUTCH

Largest bore 1 1/2 In.

H. P. 4 to 6

LIST PRICES PER CLUTCH

Diam., Ins.	Face Width, Ins.	
	4	6
8	\$41.50	\$43.00
9	42.00	43.50
10	42.50	44.00
11	43.00	44.50
12	43.50	45.00
13	44.00	45.50
14	44.50	46.00
15	45.00	46.50
16	45.50	47.00
17	46.00	47.50
18	46.50	48.00
19	47.00	48.50
20	47.50	49.00
21	48.00	49.50
22	48.50	50.00
23	49.00	50.50
24	49.50	51.00
25	50.00	51.50

## NO. 1 CLUTCH

Largest bore 2 In.

H. P. 5 to 7

LIST PRICES PER CLUTCH

Diam., Ins.	Face Width, Ins.		
	4	6	8
9	\$43.50	\$45.50	\$48.00
10	44.00	46.00	48.50
11	44.50	46.50	49.00
12	45.00	47.00	49.50
13	45.50	47.50	50.00
14	46.00	48.00	50.50
15	46.50	48.50	51.00
16	47.00	49.00	51.50
17	47.50	49.50	52.00
18	48.00	50.00	52.50
19	48.50	50.50	53.00
20	49.00	51.00	53.50
21	49.50	51.50	54.00
22	50.00	52.00	54.50
23	50.50	52.50	55.00
24	51.00	53.00	55.50
25	51.50	53.50	56.00

## NO. 2 CLUTCH

Largest bore 2 1/2 In.

H. P. 7 to 11

LIST PRICES PER CLUTCH

Diam., Ins.	Face Width, Ins.			
	4	6	8	10
11	\$47.00	\$48.50	\$51.00	.....
12	47.50	49.00	51.50	55.00
13	48.00	49.50	52.00	55.50
14	48.50	50.00	52.50	56.00
15	49.00	50.50	53.00	56.50
16	49.50	51.00	53.50	57.00
17	50.00	51.50	54.00	57.50
18	50.50	52.00	54.50	58.00
19	51.00	52.50	55.00	58.50
20	51.50	53.00	55.50	59.00
21	52.00	53.50	56.00	59.50
22	52.50	54.00	56.50	60.00
23	53.00	54.50	57.00	60.50
24	53.50	55.00	57.50	61.00
25	54.00	55.50	58.00	61.50
26	54.50	56.00	58.50	62.00
27	55.00	56.50	59.00	62.50
28	55.50	57.00	59.50	63.00

## NO. 3 CLUTCH

Largest bore 3 In.

H. P. 12 to 16

LIST PRICES PER CLUTCH

Diam., Ins.	Face Width, Ins.				
	4	6	8	10	12
12	\$57.75	\$59.50	\$62.25	\$65.25	\$69.00
14	58.75	60.75	63.75	67.25	71.00
16	60.00	62.25	65.50	69.00	73.25
18	61.00	63.75	67.25	71.25	75.75
20	62.25	65.25	69.25	73.75	78.50
22	64.25	67.75	72.00	76.75	.....
24	65.50	69.50	74.25	79.50	.....
26	67.00	71.25	76.50	.....	.....
28	68.75	73.25	79.00	.....	.....
30	.....	75.50	81.50	.....	.....
32	.....	78.50	.....	.....	.....
34	.....	80.75	.....	.....	.....
36	.....	83.25	.....	.....	.....
38	.....	86.75	.....	.....	.....
40	.....	89.25	.....	.....	.....

## NO. 3 1/2 AND NO. 4 CLUTCH

No. 3 1/2 clutch above heavy line: No. 4 below

Largest Bore 3 1/2 In.

H. P. 17 to 36

LIST PRICES PER CLUTCH

Diam., Ins.	Face Width, Ins.				
	6	8	10	12	14
18	\$79.25	\$82.75	\$86.75	\$91.25	.....
20	80.75	84.75	89.00	94.00	.....
22	83.00	87.50	92.25	97.75	\$104.00
24	84.75	89.50	94.75	100.75	107.50
26	86.75	92.00	97.50	103.75	111.00
28	88.75	94.25	100.50	107.25	122.25
30	90.75	96.75	103.25	110.50	126.00
32	94.00	100.75	108.00	116.00	132.75
34	96.25	103.25	111.00	127.00	136.75
36	98.50	106.25	114.50	131.00	141.00
38	102.25	109.25	118.00	135.00	145.75
40	104.75	112.00	128.50	138.25	.....
42	107.25	115.00	132.00	142.25	.....
44	111.75	120.25	138.00	149.25	.....
46	114.50	123.50	141.75	.....	.....
48	117.50	127.00	145.75	.....	.....
50	124.50	142.50	155.25	.....	.....
52	128.00	146.50	160.00	.....	.....
54	131.50	150.75	.....	.....	.....
56	135.25	155.00	.....	.....	.....
58	139.00	159.75	.....	.....	.....
60	143.00	164.25	.....	.....	.....

## NO. 5 AND NO. 5 1/2 CLUTCH

No. 5 clutch above heavy line: No. 5 1/2 below

Largest Bore 4 In.

H. P. 37 to 65

LIST PRICES PER CLUTCH

Diam., Ins.	Face Width, Ins.						
	6	8	10	12	14	16	18
18	\$101.00	\$104.50	\$108.50	\$113.00	.....	.....	.....
20	102.50	106.50	111.00	115.75	.....	.....	.....
22	105.00	109.25	114.00	119.50	.....	.....	.....
24	106.75	111.50	116.75	122.50	\$129.25	.....	.....
26	108.50	113.75	119.50	125.75	133.00	.....	.....
28	110.50	116.25	122.25	129.00	136.50	.....	.....
30	112.75	118.75	125.25	132.25	140.50	.....	.....
32	115.75	122.50	129.75	137.75	147.00	.....	.....
34	118.00	125.00	133.00	141.50	151.25	.....	.....
36	120.50	128.00	136.25	145.25	155.50	.....	.....
38	124.00	131.25	140.00	149.50	160.00	.....	.....
40	126.50	134.00	143.00	152.75	163.50	.....	.....
42	129.00	137.00	146.50	156.50	167.75	.....	.....
44	133.50	142.00	152.50	163.50	193.50	213.50	234.25
46	136.50	145.25	156.25	168.00	198.25	223.00	244.00
48	139.25	148.75	160.00	172.25	203.25	232.25	255.75
50	146.25	156.75	169.50	183.25	219.75	250.50	271.50
52	149.75	161.00	174.50	206.50	229.75	263.25	279.25
54	153.25	165.25	179.25	212.00	240.00	274.00	.....
56	157.00	169.50	184.25	217.50	250.25	281.25	.....
58	160.75	174.00	189.75	227.50	261.00	288.50	.....
60	164.75	178.75	194.75	237.25	271.50	.....	.....

DISCOUNT, All Numbers ..... 30% OFF



## CONTRACTING BAND CLUTCH PULLEYS

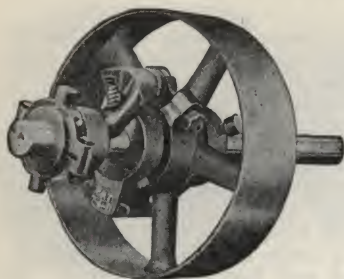


Fig. No. 1955

This is an inexpensive clutch pulley for light power.

As a countershaft clutch it "can't be beat." Open and cross belt pulleys may be used for forward and reverse motion making a duplex outfit operated by a single lever. This clutch may also be used on line shafts as well, driving direct to any machine.

This clutch is extremely simple and easy to adjust. It is durable and efficient, strong and compact, requires very little space on the shaft and may be erected complete in a short time.

For split clutch pulleys add 50% to list.

Clutch couplings or clutches with extended sleeves can also be furnished. Prices on application.

### Pulley Space on Shaft, Inches

No. 1				No. 2				Nos. 2½ and 3			
Diam., in.				Diam., in.				Diam., in.			
6-13				6-7 8-23							
Face 3 in.	9¼			Face 3 in.	11¾	11¾		Face 3-4-5 in.			
Face 4 in.	9¼			Face 4 in.	12¾	11¾		Face 6 in.			
Face 5 in.	9¾			Face 5 in.	13¾	11¾		Face 7 in.			
Face 6 in.	10¾			Face 6 in.	14¾	12¾		Face 8 in.			
				Face 7 in.	15¾	13¾		Face 9 in.			
				Face 8 in.	16¾	14¾		Face 10 in.			

### NO. 1 PULLEY

2 H. P. at 100 R. P. M. Largest bore 15/16 in.

#### LIST PRICES PER PULLEY

Face width, Ins.	3	4	5	6	7	8
Diam. 6 in.	\$20.00	\$20.45	\$20.95	\$21.65		
Diam. 7 in.	20.30	20.80	21.50	22.15		
Diam. 8 in.	20.60	21.25	21.95			
Diam. 9 in.	21.05	21.70				
Diam. 10 in.	21.65	22.40				
Diam. 11 in.	22.00					
Diam. 12 in.	22.40					
Diam. 13 in.	22.75					

### NO. 2 PULLEY

4½ H. P. at 100 R. P. M. Largest bore 115/16 in.

#### LIST PRICES PER PULLEY

Face width, Ins.	3	4	5	6	7	8
Diam. 6 in.	\$22.60	\$23.00	\$23.55	\$24.20	\$25.70	\$26.40
Diam. 7 in.	22.90	23.40	24.10	24.75	26.20	26.90
Diam. 8 in.	23.20	23.85	24.50	25.20	26.70	27.45
Diam. 9 in.	23.60	24.30	25.05	25.80	27.40	
Diam. 10 in.	24.20	25.00	25.70	26.50		
Diam. 11 in.	24.60	25.40	26.25	27.15		
Diam. 12 in.	25.00	25.90	26.80			
Diam. 13 in.	25.35	26.30	27.30			
Diam. 14 in.	25.80	26.85	28.00			
Diam. 15 in.	26.25	27.40				
Diam. 16 in.	27.15	28.20				
Diam. 17 in.	27.60	28.90				
Diam. 18 in.	28.05	29.50				
Diam. 19 in.	28.60					
Diam. 20 in.	29.10					
Diam. 21 in.	30.50					
Diam. 22 in.	31.05					
Diam. 23 in.	31.65					

### NO. 2½ PULLEY

6 H. P. at 100 R. P. M. Largest bore 23/16 in.

#### LIST PRICES PER PULLEY

Face width, Ins.	9	10				
Diam. 9 in.....	\$32.65	\$33.55				
Diam. 10 in.....	33.80					
Face width, Ins.	3	4	5	6	7	8
Diam. 9 in.....						\$30.70
Diam. 10 in.....					\$30.70	31.40
Diam. 11 in.....					31.40	32.20
Diam. 12 in.....				\$30.25	32.05	33.10
Diam. 13 in.....				30.85	32.75	33.80
Diam. 14 in.....				31.60	33.65	34.85
Diam. 15 in.....			\$31.10	32.30	34.40	35.65
Diam. 16 in.....			31.90	33.20	35.60	36.65
Diam. 17 in.....			32.65	34.00	36.20	37.60
Diam. 18 in.....			33.40	34.85	37.15	
Diam. 19 in.....		\$32.60	34.15	35.75		
Diam. 20 in.....		33.20	34.85	36.50		
Diam. 21 in.....		34.70	36.40	38.15		
Diam. 22 in.....			35.35	37.15		
Diam. 23 in.....	\$34.15	36.05	38.00			
Diam. 24 in.....	34.75	36.80	38.80			
Diam. 25 in.....	35.45	37.55				
Diam. 26 in.....	36.10	38.35				

### NO. 3 PULLEYS

7½ H. P. at 100 R. P. M. Largest bore 27/16 in.

#### LIST PRICES PER PULLEY

Face width, Ins.	4	5	6	7	8	10
Diam. 12 in.	\$33.40	\$34.30	\$35.30	\$37.10	\$38.15	\$41.80
Diam. 14 in.	34.40	35.50	36.65	38.65	39.95	
Diam. 15 in.	34.90	36.05	37.70	39.40	40.60	
Diam. 16 in.	35.75	36.95	38.20	40.60		
Diam. 18 in.	37.00	38.45	39.95			
Diam. 20 in.	38.20	39.85	41.50			
Diam. 22 in.	40.40	42.20				
Diam. 24 in.	41.80	43.85				
Diam. 26 in.	43.40					
Diam. 28 in.	45.10					

## DISCOUNT

30% OFF

## LOCKE STEEL TEMPERED DETACHABLE SPROCKET CHAIN AND ATTACHMENTS

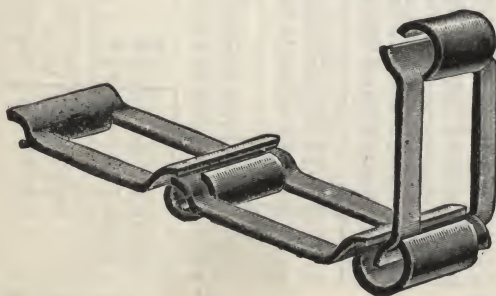


Fig. 2464

### LIST PRICES PER 100 FT.

Sprocket Chain		Attachments	
List Per 100 Ft.	List Per 100 Ft.	List Per 100 Ft.	List Per 100 Ft.
No. 25.....\$17.00	No. 51.....\$24.00	No. 32 C-1.....\$39.00	
No. 32.....17.00	No. 52.....23.00	No. 45 A-1.....35.00	
No. 33.....16.00	No. 55.....20.00	No. 45 A-2.....52.00	
No. 34.....18.00	No. 57.....26.00	No. 45 C-1.....37.00	
No. 42.....19.00	No. 62.....27.00	No. 55 C-1.....38.00	
No. 45.....18.00	No. 67.....30.00		
No. 50.....22.00			
DISCOUNT		{ Sprocket Chair .....25% OFF	
		{ Attachments .....15% OFF	



## CAST IRON SPROCKET WHEELS

Our sprocket wheels are made of the highest grade gray iron. Prices as shown here cover only wheels of this material with standard bores, standard hub, and with either keyseat or set screws. Wheels with both keyseat and set screws are subject to an additional charge.

We are, however, prepared to furnish on short notice, cast steel, semi steel or flint rim sprocket wheels, also wheels to order of special design and special bore, with shorter or longer hubs than standard on one side or both sides, or with a clutch of any preferred pattern. Prices on all wheels which differ from standard are special and will be quoted on application.

**IMPORTANT:** Cast Iron Sprocket Wheels are not returnable for credit.

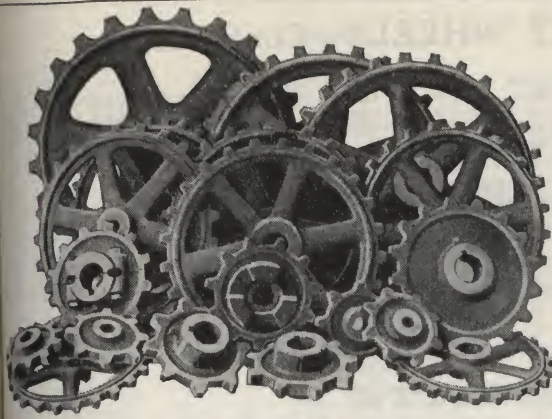


Fig. No. 647

### EXTRA CHARGES ARE MADE FOR SPECIAL FEATURES AS FOLLOWS:

1. Split wheels. See below.
2. Plate center construction. Prices on application.
3. Cast steel, semi-steel, or flint rim wheels. Prices on application.
4. Wheels with extra long hub. See below.
5. Wheels with hubs faced both sides. (Hubs ordered of a definite length require this feature.) Prices on application.
6. Wheels with hubs of special dimensions. Prices on application.
7. Wheels with extra large bores. See below.
8. Extra keyseats (over one) or extra set screws (over two). One keyseat or two set screws (but not both) allowed without extra charge. Prices on application.
9. Fitting sprockets and keys to shafts. Prices on application.
10. Brass bushings in sprockets. Prices on application.
11. Jaw clutch hub in sprockets. Prices on application.
12. Friction clutch attached to sprocket. Prices on application.

### DIRECTIONS FOR ORDERING

When ordering, always state:

1. Number of wheels required.
2. Number of teeth and pitch diameter.
3. Number of chain which is to be used on sprocket wheel.
4. Exact diameter of bore.
5. If hubs are offset or special, give full information—sketch, if possible.
6. Whether keyseated, set-screwed, or both. Give size of keyway, and state whether straight or taper.
7. Specify whether wheel is solid or split.

### LIST EXTRA FOR SPLITTING SPROCKETS

The following additional charge is to be added to the regular list. Effective July 1, 1927.

Sprocket Pitch Diameter, inches	BORE OF SPROCKET—INCHES														
	1 1/8	1 1/4	1 1/2	1 5/8	2 1/8	2 1/4	2 1/2	2 3/4	3 1/8	3 1/4	3 1/2	4 1/8	4 1/4	4 1/2	4 3/4
Up to and incl. 7.99	\$ 2.60	\$ 2.80	\$ 3.00	\$ 3.20	\$ 3.40	\$ 3.60	\$ 3.80	\$ 4.00	\$ 4.20	\$ 4.40	\$ 4.60	\$ 4.80	\$ 5.00	\$ 5.20	\$ 5.40
8-11.99	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
12-17.99	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00	6.20	6.40	6.60	6.80
18-23.99	5.00	5.20	5.40	5.60	5.80	6.00	6.20	6.40	6.60	6.80	7.00	7.20	7.40	7.60	7.80
24-29.99	5.80	6.00	6.20	6.40	6.60	6.80	7.00	7.20	7.40	7.60	7.80	8.00	8.20	8.40	8.60
30-35.99	6.80	7.00	7.20	7.40	7.60	7.80	8.00	8.20	8.40	8.60	8.80	9.00	9.20	9.40	9.60
36-41.99	7.80	8.00	8.20	8.40	8.60	8.80	9.00	9.20	9.40	9.60	9.80	10.00	10.20	10.40	10.60
42-47.99	8.80	9.00	9.20	9.40	9.60	9.80	10.00	10.20	10.40	10.60	10.80	11.00	11.20	11.40	11.60
48-53.99	9.80	10.00	10.20	10.40	10.60	10.80	11.00	11.20	11.40	11.60	11.80	12.00	12.20	12.40	12.60
54-59.99	10.80	11.00	11.20	11.40	11.60	11.80	12.00	12.20	12.40	12.60	12.80	13.00	13.20	13.40	13.60
60-65.99	11.80	12.00	12.20	12.40	12.60	12.80	13.00	13.20	13.40	13.60	13.80	14.00	14.20	14.40	14.60
66-71.99	12.80	13.00	13.20	13.40	13.60	13.80	14.00	14.20	14.40	14.60	14.80	15.00	15.20	15.40	15.60
72-80	13.80	14.00	14.20	14.40	14.60	14.80	15.00	15.20	15.40	15.60	15.80	16.00	16.20	16.40	16.60

### LIST EXTRA FOR LARGE BORES—LONG HUBS

The item "Largest Bore at Regular Price" with each Sprocket gives maximum standard. When actual bore exceeds this figure, add amounts listed below for actual bore, to the standard list.

#### FOR BORES LARGER THAN "LARGEST AT REGULAR PRICE" ADDITIONAL TO STANDARD LIST

Listed Max. Bore, inch	Hub Length	Extra Per Std. Inch More	1 1/8	1 1/4	1 1/2	1 5/8	2 1/8	2 1/4	2 1/2	2 3/4	3 1/8	3 1/4	3 1/2	4 1/8	4 1/4	4 1/2	4 3/4	5 1/8	5 1/4	5 1/2	5 3/4	6 1/8	6 1/4	6 1/2
			1 1/8	1 1/4	1 1/2	1 5/8	2 1/8	2 1/4	2 1/2	2 3/4	3 1/8	3 1/4	3 1/2	4 1/8	4 1/4	4 1/2	4 3/4	5 1/8	5 1/4	5 1/2	5 3/4	6 1/8	6 1/4	6 1/2
1/2	1/2	\$0.20	\$0.20	\$0.60	\$1.00	\$1.60	\$2.20	\$2.80	\$3.40	\$4.00	\$4.60	\$5.20	\$5.80	\$6.40	\$7.00	\$7.60	\$8.20	\$8.80	\$9.40	\$10.00	\$10.60	\$11.20	\$11.80	\$12.40
1 1/4	4	.30	....	.40	.80	1.40	2.00	2.60	3.20	3.80	4.40	5.00	5.60	6.20	6.80	7.40	8.00	8.60	9.20	9.80	10.40	11.00	11.60	12.20
1 1/2	4	.40	....	....	.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80	5.40	6.00	6.60	7.20	7.80	8.40	9.00	9.60	10.20	10.80	11.40	12.00
1 3/4	4	.50	....	....	....	.60	1.20	2.00	2.60	3.20	3.80	4.40	5.00	5.60	6.20	6.80	7.40	8.00	8.60	9.20	9.80	10.40	11.00	11.60
2 1/4	5	.60	....	....	....	....	.60	1.40	2.20	2.80	3.40	4.00	4.60	5.20	5.80	6.40	7.00	7.60	8.20	8.80	9.40	10.00	10.60	11.20
2 1/2	5	.80	....	....	....	....	....	.80	1.60	2.20	2.80	3.40	4.00	4.60	5.20	5.80	6.40	7.00	7.60	8.20	8.80	9.40	10.00	10.60
2 3/4	5 1/2	1.00	....	....	....	....	....	....	1.00	2.40	3.00	3.60	4.20	4.80	5.40	6.00	6.60	7.20	7.80	8.40	9.00	9.60	10.20	10.80
3 1/4	6 1/2	1.20	....	....	....	....	....	....	....	1.00	2.40	3.00	3.60	4.20	4.80	5.40	6.00	6.60	7.20	7.80	8.40	9.00	9.60	10.20
3 1/2	6 1/2	1.40	....	....	....	....	....	....	....	1.60	3.40	4.00	4.60	5.20	5.80	6.40	7.00	7.60	8.20	8.80	9.40	10.00	10.60	11.20
3 3/4	8	1.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4 1/4	9	2.00	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4 1/2	10	2.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4 3/4	11	2.60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
5 1/4	12	3.00	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
5 1/2	13	3.40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Note: List extras are subject to the same discount as the line to which they apply.



## CAST IRON SPROCKET WHEELS—Continued

No. of Teeth	Pitch Diam. Inches	Largest Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Largest Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Largest Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Largest Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Largest Bore at Regular Price	List Each
<b>For Chains Nos. 25, 31, 032 (See foot note)</b>										<b>The diameters listed are slightly altered for No. 31.</b>									
5	1.53	$\frac{5}{8}$	\$2.05	14	4.05	$1\frac{1}{8}$	\$2.60	23	6.62	$1\frac{1}{8}$	\$3.50	34	9.78	$1\frac{1}{8}$	\$4.60	60	17.23	$1\frac{1}{8}$	\$
6	1.80	$\frac{3}{4}$	2.10	15	4.34	$1\frac{1}{8}$	2.70	24	6.91	$1\frac{1}{8}$	3.60	35	10.06	$1\frac{1}{8}$	4.70	64	18.38	$1\frac{1}{8}$	\$
7	2.08	$\frac{3}{4}$	2.15	16	4.62	$1\frac{1}{8}$	2.80	25	7.20	$1\frac{1}{8}$	3.70	36	10.35	$1\frac{1}{8}$	4.80	77	22.11	$1\frac{1}{8}$	\$
8	2.36	$\frac{3}{4}$	2.20	17	4.91	$1\frac{1}{8}$	2.90	26	7.48	$1\frac{1}{8}$	3.80	38	10.92	$1\frac{1}{8}$	5.00	84	24.12	$1\frac{1}{8}$	\$
9	2.64	$\frac{3}{4}$	2.25	18	5.19	$1\frac{1}{8}$	3.00	27	7.77	$1\frac{1}{8}$	3.90	42	12.07	$1\frac{1}{8}$	5.50	105	30.15	$1\frac{1}{8}$	\$
10	2.92	$1\frac{1}{16}$	2.30	19	5.48	$1\frac{1}{8}$	3.10	28	8.06	$1\frac{1}{8}$	4.00	44	12.64	$1\frac{1}{8}$	5.70				
11	3.20	$1\frac{1}{16}$	2.35	20	5.77	$1\frac{1}{8}$	3.20	29	8.34	$1\frac{1}{8}$	4.10	48	13.79	$1\frac{1}{8}$	6.10				
12	3.49	$1\frac{1}{16}$	2.40	21	6.05	$1\frac{1}{8}$	3.30	30	8.63	$1\frac{1}{8}$	4.20	52	14.94	$1\frac{1}{8}$	6.60				
13	3.77	$1\frac{1}{16}$	2.50	22	6.34	$1\frac{1}{8}$	3.40	32	9.20	$1\frac{1}{8}$	4.40	56	16.09	$1\frac{1}{8}$	7.00				

<b>For Chains Nos. 32, 34<math>\frac{1}{2}</math> (See foot note)</b>										<b>The diameters listed are slightly altered for No. 34<math>\frac{1}{2}</math>.</b>									
5	1.96	$\frac{5}{8}$	\$2.30	13	4.82	$1\frac{1}{8}$	\$3.10	21	7.74	$1\frac{1}{8}$	\$4.10	30	11.04	$1\frac{1}{8}$	\$5.30	44	16.18	$1\frac{1}{8}$	\$
6	2.31	$\frac{3}{4}$	2.40	14	5.19	$1\frac{1}{8}$	3.20	22	8.11	$1\frac{1}{8}$	4.20	32	11.77	$1\frac{1}{8}$	5.60	45	16.54	$1\frac{1}{8}$	\$
7	2.66	$\frac{3}{4}$	2.50	15	5.55	$1\frac{1}{8}$	3.30	23	8.47	$1\frac{1}{8}$	4.30	33	12.14	$1\frac{1}{8}$	5.70	48	17.64	$1\frac{1}{8}$	\$
8	3.02	$1\frac{1}{16}$	2.60	16	5.92	$1\frac{1}{8}$	3.40	24	8.84	$1\frac{1}{8}$	4.40	35	12.87	$1\frac{1}{8}$	6.10	55	20.21	$1\frac{1}{8}$	\$
9	3.37	$1\frac{1}{16}$	2.70	17	6.28	$1\frac{1}{8}$	3.50	25	9.21	$1\frac{1}{8}$	4.50	36	13.24	$1\frac{1}{8}$	6.20	65	23.89	$1\frac{1}{8}$	\$
10	3.73	$1\frac{1}{16}$	2.80	18	6.65	$1\frac{1}{8}$	3.60	26	9.57	$1\frac{1}{8}$	4.60	38	13.97	$1\frac{1}{8}$	6.50	75	27.56	$1\frac{1}{8}$	\$
11	4.10	$1\frac{1}{16}$	2.90	19	7.01	$1\frac{1}{8}$	3.80	27	9.94	$1\frac{1}{8}$	4.80	40	14.71	$1\frac{1}{8}$	6.80				
12	4.46	$1\frac{1}{16}$	3.00	20	7.38	$1\frac{1}{8}$	4.00	28	10.31	$1\frac{1}{8}$	5.00	41	15.08	$1\frac{1}{8}$	7.10				

<b>For Chains Nos. 33, 34 (See foot note)</b>										<b>The diameters listed are slightly altered for No. 33.</b>									
6	2.80	$1\frac{1}{16}$	\$2.60	13	5.84	$1\frac{1}{8}$	\$3.40	21	9.38	$1\frac{1}{8}$	\$4.80	30	13.37	$1\frac{1}{8}$	\$6.60	41	18.26	$1\frac{1}{8}$	\$
7	3.22	$1\frac{1}{16}$	2.70	14	6.28	$1\frac{1}{8}$	3.60	22	9.82	$1\frac{1}{8}$	5.00	32	14.26	$1\frac{1}{8}$	7.00	42	18.71	$1\frac{1}{8}$	\$
8	3.65	$1\frac{1}{16}$	2.80	15	6.72	$1\frac{1}{8}$	3.80	23	10.27	$1\frac{1}{8}$	5.20	33	14.71	$1\frac{1}{8}$	7.20	50	22.26	$1\frac{1}{8}$	\$
9	4.09	$1\frac{1}{16}$	2.90	16	7.17	$1\frac{1}{8}$	4.00	24	10.71	$1\frac{1}{8}$	5.40	34	15.15	$1\frac{1}{8}$	7.40	54	24.04	$1\frac{1}{8}$	\$
10	4.52	$1\frac{1}{16}$	3.00	18	8.05	$1\frac{1}{8}$	4.30	25	11.15	$1\frac{1}{8}$	5.60	35	15.60	$1\frac{1}{8}$	7.60	63	28.05	$1\frac{1}{8}$	\$
11	4.96	$1\frac{1}{16}$	3.10	19	8.49	$1\frac{1}{8}$	4.50	27	12.04	$1\frac{1}{8}$	6.00	36	16.04	$1\frac{1}{8}$	7.80				
12	5.40	$1\frac{1}{16}$	3.30	20	8.94	$1\frac{1}{8}$	4.70	28	12.49	$1\frac{1}{8}$	6.20	38	16.93	$1\frac{1}{8}$	8.20				

<b>For Chains Nos. 35, 45, 45 Keeper, 46, 046, 47, 55, 55 Keeper, 1A, 2A, 5A (See foot note)</b>										<b>The diameters listed are slightly altered for Nos. 35, 046, 46, 55.</b>									
5	2.77	$\frac{3}{4}$	\$2.80	15	7.84	$1\frac{1}{8}$	\$4.70	25	13.01	$1\frac{1}{8}$	\$7.30	36	18.70	$1\frac{1}{8}$	\$10.10	54	28.03	$1\frac{1}{8}$	\$
6	3.26	$1\frac{1}{16}$	2.90	16	8.36	$1\frac{1}{8}$	4.90	26	13.52	$1\frac{1}{8}$	7.50	38	19.74	$1\frac{1}{8}$	10.70	58	30.11	$1\frac{1}{8}$	\$
7	3.76	$1\frac{1}{16}$	3.00	17	8.87	$1\frac{1}{8}$	5.10	27	14.04	$1\frac{1}{8}$	7.80	39	20.26	$1\frac{1}{8}$	11.00	68	35.29	$1\frac{1}{8}$	\$
8	4.26	$1\frac{1}{16}$	3.10	18	9.39	$1\frac{1}{8}$	5.40	28	14.56	$1\frac{1}{8}$	8.00	40	20.78	$1\frac{1}{8}$	11.30	69	35.81	$1\frac{1}{8}$	\$
9	4.77	$1\frac{1}{16}$	3.20	19	9.90	$1\frac{1}{8}$	5.60	29	15.08	$1\frac{1}{8}$	8.30	42	21.81	$1\frac{1}{8}$	11.80	78	40.48	$1\frac{1}{8}$	\$
10	5.27	$1\frac{1}{16}$	3.50	20	10.42	$1\frac{1}{8}$	5.90	30	15.59	$1\frac{1}{8}$	8.50	44	22.85	$1\frac{1}{8}$	12.40	80	41.52	$1\frac{1}{8}$	\$
11	5.79	$1\frac{1}{16}$	3.70	21	10.94	$1\frac{1}{8}$	6.20	31	16.11	$1\frac{1}{8}$	8.80	45	23.37	$1\frac{1}{8}$	12.60	82	42.56	$1\frac{1}{8}$	\$
12	6.30	$1\frac{1}{16}$	4.00	22	11.45	$1\frac{1}{8}$	6.50	32	16.63	$1\frac{1}{8}$	9.00	46	23.89	$1\frac{1}{8}$	12.90	126	65.38	$1\frac{1}{8}$	\$
13	6.81	$1\frac{1}{16}$	4.20	23	11.97	$1\frac{1}{8}$	6.80	34	17.67	$1\frac{1}{8}$	9.50	48	24.92	$1\frac{1}{8}$	13.50				
14	7.33	$1\frac{1}{16}$	4.40	24	12.49	$1\frac{1}{8}$	7.00	35	18.18	$1\frac{1}{8}$	9.80	50	25.96	$1\frac{1}{8}$	14.00				

<b>For Chains Nos. 42, 042, 50 (See foot note)</b>										<b>The diameters listed are slightly altered for No. 50.</b>									
5	2.34	$\frac{5}{8}$	\$2.70	12	5.31	$1\frac{1}{8}$	\$3.40	19	8.35	$1\frac{1}{8}$	\$4.80	28	12.28	$1\frac{1}{8}$	\$6.60	45	19.71	$1\frac{1}{8}$	\$
6	2.75	$1\frac{1}{16}$	2.80	13	5.75	$1\frac{1}{8}$	3.60	20	8.79	$1\frac{1}{8}$	5.00	32	14.03	$1\frac{1}{8}$	7.40	46	20.15	$1\frac{1}{8}$	\$
7	3.17	$1\frac{1}{16}$	2.90	14	6.18	$1\frac{1}{8}$	3.80	21	9.23	$1\frac{1}{8}$	5.20	36	15.78	$1\frac{1}{8}$	8.20	55	24.09	$1\frac{1}{8}$	\$
8	3.59	$1\frac{1}{16}$	3.00	15	6.61	$1\frac{1}{8}$	4.00	22	9.66	$1\frac{1}{8}$	5.40	38	16.65	$1\frac{1}{8}$	8.70				
9	4.02	$1\frac{1}{16}$	3.10	16	7.05	$1\frac{1}{8}$	4.20	24	10.53	$1\frac{1}{8}$	5.80	39	17.09	$1\frac{1}{8}$	8.90				
10	4.45	$1\frac{1}{16}$	3.20	17	7.48	$1\frac{1}{8}$	4.40	26	11.41	$1\frac{1}{8}$	6.20	40	17.53	$1\frac{1}{8}$	9.10				
11	4.88	$1\frac{1}{16}$	3.30	18	7.92	$1\frac{1}{8}$	4.60	27	11.84	$1\frac{1}{8}$	6.40	41	17.96	$1\frac{1}{8}$	9.40				

<b>For Chain No. 51 (See foot note)</b>																			
6	2.31	$\frac{3}{4}$	\$2.55	13	4.83	$1\frac{1}{8}$	\$3.20	20	7.38	$1\frac{1}{8}$	\$4.20	27	9.95	$1\frac{1}{8}$	\$5.40	35	12.88	$1\frac{1}{8}$	\$
7	2.66	$\frac{3}{4}$	2.60	14	5.19	$1\frac{1}{8}$	3.30	21	7.75	$1\frac{1}{8}$	4.40	28	10.32	$1\frac{1}{8}$	5.50	36	13.25	$1\frac{1}{8}$	\$
8	3.02	$1\frac{1}{16}$	2.70	15	5.56	$1\frac{1}{8}$	3.50	22	8.12	$1\frac{1}{8}$	4.60	29	10.68	$1\frac{1}{8}$	5.60	39	14.35	$1\frac{1}{8}$	\$
9	3.38	$1\frac{1}{16}$	2.80	16	5.92	$1\frac{1}{8}$	3.60	23	8.48	$1\frac{1}{8}$	4.80	30	10.05	$1\frac{1}{8}$	5.80	40	14.72	$1\frac{1}{8}$	\$
10	3.74	$1\frac{1}{16}$	2.90	17	6.29	$1\frac{1}{8}$	3.80	24	8.85	$1\frac{1}{8}$	4.90	32	11.78	$1\frac{1}{8}$	6.20	45	16.56	$1\frac{1}{8}$	\$
11	4.10	$1\frac{1}{16}$	3.00	18	6.65	$1\frac{1}{8}$	4.00	25	9.22	$1\frac{1}{8}$	5.00	33	12.15	$1\frac{1}{8}$	6.40	50	18.39	$1\frac{1}{8}$	\$
12	4.46	$1\frac{1}{16}$	3.10	19	7.02	$1\frac{1}{8}$	4.10	26	9.58	$1\frac{1}{8}$	5.20	34	12.52	$1\frac{1}{8}$	6.60	55	20.23	$1\frac{1}{8}$	\$

For Chains Nos. 52, 52½ Lt., 52½ Hvy., 063 (See foot note)												The diameters listed are slightly altered for No. 063.							
7	3.47	1⅛	\$2.90	16	7.72	1⅜	\$4.70	25	12.02	1⅜	\$6.80	37	17.76	1⅜	\$ 9.60	55	26.38	1⅜	\$14
8	3.94	1⅛	3.00	17	8.20	1⅜	4.90	26	12.49	1⅜	7.00	38	18.24	1⅜	9.90	58	27.82	1⅜	15
9	4.40		3.10	18	8.67	1⅜	5.10	27	12.97	1⅜	7.30	39	18.72	1⅜	10.20	60	28.76	1⅜	15
10	4.87	1⅛	3.30	19	9.15	1⅜	5.30	28	13.45	1⅜	7.50	40	19.19	1⅜	10.50	64	30.69	1⅜	17
11	5.35	1⅛	3.50	20	9.63	1⅜	5.50	30	14.41	1⅜	8.00	42	20.15	1⅜	11.00	76	36.44	1⅜	22
12	5.82	1⅛	3.70	21	10.10	1⅜	5.80	32	15.36	1⅜	8.40	46	22.07	1⅜	11.80				
13	6.29	1⅛	4.00	22	10.58	1⅜	6.00	34	16.32	1⅜	8.90	49	23.51	1⅜	12.60				
14	6.77	1⅛	4.20	23	11.06	1⅜	6.30	35	16.80	1⅜	9.20	51	24.46	1⅜	13.20				
15	7.24	1⅛	4.40	24	11.54	1⅜	6.50	36	17.28	1⅜	9.40	52	24.94	1⅜	13.50				



## CAST IRON SPROCKET WHEELS—Continued

Largest Bore at Regular Price				Largest Bore at Regular Price				Largest Bore at Regular Price				Largest Bore at Regular Price			
No. of Teeth	Pitch Diam. Inches	Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Bore at Regular Price	List Each	No. of Teeth	Pitch Diam. Inches	Bore at Regular Price	List Each
For Chains Nos. 62, 062, 62 1/2, 072, 72 1/2 (See foot note)															
The diameters listed are slightly altered for No. 062.															
6	3.31	1 1/16	\$3.40	14	7.43	1 1/16	\$5.30	22	11.62	2 1/16	\$7.40	30	15.82	2 1/16	\$9.80
7	3.81	1 1/16	3.60	15	7.96	1 1/16	5.60	23	12.15	2 1/16	7.70	32	16.87	2 1/16	10.40
8	4.32	1 1/16	3.80	16	8.48	1 1/16	5.80	24	12.67	2 1/16	8.00	34	17.93	2 1/16	11.10
9	4.84	1 1/16	4.00	17	9.00	1 1/16	6.10	25	13.20	2 1/16	8.30	36	18.98	2 1/16	11.70
10	5.35	1 1/16	4.20	18	9.53	1 1/16	6.30	26	13.72	2 1/16	8.60	38	20.03	2 1/16	12.30
11	5.87	1 1/16	4.40	19	10.05	1 1/16	6.60	27	14.25	2 1/16	8.90	43	22.66	2 1/16	14.00
12	6.39	1 1/16	4.70	20	10.57	2 1/16	6.90	28	14.77	2 1/16	9.20	45	23.71	2 1/16	14.40
13	6.91	1 1/16	5.00	21	11.10	2 1/16	7.10	29	15.30	2 1/16	9.50	48	25.29	2 1/16	15.40
For Chains 75, 78, 88 (See foot note)															
5	4.44	1 1/16	\$3.80	15	12.55	2 1/16	\$8.50	25	20.82	2 1/16	\$13.50	35	29.11	2 1/16	\$19.60
6	5.22	1 1/16	4.20	16	13.37	2 1/16	9.00	26	21.64	2 1/16	14.00	36	29.93	2 1/16	20.40
7	6.01	1 1/16	4.60	17	14.20	2 1/16	9.50	27	22.47	2 1/16	14.50	37	30.76	2 1/16	21.20
8	6.82	1 1/16	5.00	18	15.02	2 1/16	10.00	28	23.31	2 1/16	15.00	38	31.59	2 1/16	22.00
9	7.63	1 1/16	5.50	19	15.85	2 1/16	10.50	29	24.13	2 1/16	15.50	39	32.42	2 1/16	22.80
10	8.44	1 1/16	6.00	20	16.68	2 1/16	11.00	30	24.96	2 1/16	16.00	40	33.25	2 1/16	23.60
11	9.26	1 1/16	6.50	21	17.51	2 1/16	11.50	31	25.79	2 1/16	16.60	42	34.91	2 1/16	25.20
12	10.08	2 1/16	7.00	22	18.33	2 1/16	12.00	32	26.62	2 1/16	17.20	43	35.74	2 1/16	26.00
13	10.90	2 1/16	7.50	23	19.16	2 1/16	12.50	33	27.45	2 1/16	18.00	44	36.57	2 1/16	26.80
14	11.72	2 1/16	8.00	24	19.99	2 1/16	13.00	34	28.28	2 1/16	18.80	46	38.23	2 1/16	28.60
For Chains Nos. 85, 95 (See foot note)															
The diameters listed are slightly altered for No. 95.															
6	8.00	2 1/16	\$7.40	11	14.20	2 1/16	\$11.80	16	20.50	2 1/16	\$16.80	22	28.11	2 1/16	\$24.00
7	9.22	2 1/16	8.20	12	15.45	2 1/16	12.80	18	23.04	2 1/16	19.20	23	29.38	2 1/16	25.40
8	10.45	2 1/16	9.00	13	16.71	2 1/16	13.80	19	24.30	2 1/16	20.40	24	30.65	2 1/16	26.80
9	11.70	2 1/16	9.80	14	17.98	2 1/16	14.80	20	25.57	2 1/16	21.60	25	31.91	2 1/16	28.20
10	12.94	2 1/16	10.80	15	19.24	2 1/16	15.80	21	26.84	2 1/16	22.80	26	33.18	2 1/16	29.60
For Chains No. 103 (See foot note)															
5	5.23	1 1/16	\$4.20	16	15.76	2 1/16	\$10.80	27	26.49	2 1/16	\$18.00	38	37.24	3 1/16	\$31.00
6	6.15	1 1/16	4.80	17	16.73	2 1/16	11.40	28	27.46	2 1/16	18.80	39	38.21	3 1/16	32.50
7	7.09	1 1/16	5.40	18	17.71	2 1/16	12.00	29	28.44	2 1/16	19.80	40	39.19	3 1/16	34.00
8	8.04	2 1/16	6.00	19	18.68	2 1/16	12.60	30	29.42	2 1/16	20.80	41	40.17	3 1/16	35.50
9	8.99	2 1/16	6.60	20	19.66	2 1/16	13.20	31	30.39	2 1/16	21.80	42	41.15	3 1/16	37.00
10	9.95	2 1/16	7.20	21	20.63	2 1/16	13.80	32	31.37	2 1/16	22.80	43	42.13	3 1/16	38.50
11	10.91	2 1/16	7.80	22	21.61	2 1/16	14.40	33	32.35	2 1/16	23.80	44	43.10	3 1/16	40.00
12	11.88	2 1/16	8.40	23	22.58	2 1/16	15.00	34	33.33	3 1/16	25.00	45	44.08	3 1/16	41.50
13	12.85	2 1/16	9.00	24	23.56	2 1/16	15.60	35	34.30	3 1/16	26.50	46	45.06	3 1/16	43.00
14	13.82	2 1/16	9.60	25	24.53	2 1/16	16.40	36	35.28	3 1/16	28.00	47	46.04	3 1/16	44.50
15	14.79	2 1/16	10.20	26	25.51	2 1/16	17.20	37	36.26	3 1/16	29.50	48	47.02	3 1/16	46.00
For Chains Nos. 108, 110 (See foot note)															
6	9.44	2 1/16	\$9.80	9	13.80	2 1/16	\$13.00	12	18.24	2 1/16	\$16.60	16	24.19	3 1/16	\$22.60
7	10.88	2 1/16	10.80	10	15.27	2 1/16	14.20	13	19.72	2 1/16	18.00	18	27.18	3 1/16	25.80
8	12.33	2 1/16	11.80	11	16.75	2 1/16	15.40	14	21.21	2 1/16	19.40	20	30.17	3 1/16	29.00
For Chain No. 114 (See foot note)															
5	5.53	1 1/16	\$5.80	12	12.56	2 1/16	\$9.40	19	19.75	2 1/16	\$14.20	30	31.09	3 1/16	\$24.60
6	6.50	1 1/16	6.20	13	13.58	2 1/16	10.00	20	20.78	2 1/16	15.00	32	33.16	3 1/16	27.00
7	7.49	2 1/16	6.60	14	14.61	2 1/16	10.60	21	21.81	2 1/16	15.80	34	35.22	3 1/16	30.00
8	8.49	2 1/16	7.00	15	15.63	2 1/16	11.30	22	22.84	2 1/16	16.60	35	36.26	3 1/16	31.50
9	9.50	2 1/16	7.60	16	16.66	2 1/16	12.00	23	23.87	2 1/16	17.40	36	37.29	3 1/16	33.00
10	10.52	2 1/16	8.20	17	17.69	2 1/16	12.70	24	24.90	2 1/16	18.40	37	38.32	3 1/16	34.60
11	11.54	2 1/16	8.80	18	18.72	2 1/16	13.40	26	26.96	3 1/16	20.40	38	39.36	3 1/16	36.20
For Chain No. 122 (See foot note)															
6	12.10	3 1/16	\$14.00	9	17.69	3 1/16	\$19.20	12	23.38	3 1/16	\$26.20	15	29.10	3 1/16	\$34.00
7	13.94	3 1/16	15.60	10	19.58	3 1/16	21.40	13	25.28	3 1/16	28.80	16	31.01	3 1/16	36.60
8	15.81	3 1/16	17.20	11	21.47	3 1/16	23.60	14	27.19	3 1/16	31.40	19	36.76	3 1/16	49.80
For Chain No. 124 (See foot note)															
6	8.13	2 1/16	\$ 8.00	13	16.98	3 1/16	\$15.00	20	25.97	3 1/16	\$23.20	30	38.87	3 1/16	\$38.00
7	9.36	2 1/16	9.00	14	18.26	3 1/16	16.00	22	28.55	3 1/16	25.60	32	41.45	3 1/16	41.60
8	10.62	2 1/16	10.00	15	19.54	3 1/16	17.20	23	29.84	3 1/16	26.80	34	44.03	3 1/16	45.20
9	11.88	2 1/16	11.00	16	20.83	3 1/16	18.40	24	31.13	3 1/16	28.40	35	45.33	3 1/16	47.20
10	13.15	3 1/16	12.00	17	22.11	3 1/16	19.60	25	32.42	3 1/16	30.00	36	46.62	3 1/16	49.20
11	14.42	3 1/16	13.00	18	23.40	3 1/16	20.80	27	35.00	3 1/16	33.20	37	47.92	3 1/16	51.40
12	15.70	3 1/16	14.00	19	24.68	3 1/16	22.00	28	36.29	3 1/16	34.80	38	49.20	3 1/16	53.60
For Griplock Chains Nos. 274, 278 (See foot note)															
5	4.44	1 1/16	\$3.80	15	12.55	2 1/16	\$8.50	25	20.82	2 1/16	\$13.50	35	29.11	2 1/16	\$19.60
6	5.22	1 1/16	4.20	16	13.37	2 1/16	9.00	26	21.64	2 1/16	14.00	36	29.93	2 1/16	20.40
7	6.01	1 1/16	4.60	17	14.20	2 1/16	9.50	27	22.47	2 1/16	14.50	37	30.76	2 1/16	21.20
8	6.82	1 1/16	5.00	18	15.02	2 1/16	10.00	28	23.30	2 1/16	15.00	38	31.59	2 1/16	22.00
9	7.63	1 1/16	5.50	19	15.85	2 1/16	10.50	29	24.13	2 1/16	15.50	39	32.42	2 1/16	22.80
10	8.44	1 1/16	6.00	20	16.68	2 1/16	11.00	30	24.96	2 1/16	16.00	40	33.25	2 1/16	23.60
11	9.26	1 1/16	6.50	21	17.51	2 1/16	11.50	31	25.79	2 1/16	16.60	42	34.91	2 1/16	25.20
12	10.08	2 1/16	7.00	22	18.33	2 1/16	12.00	32	26.62	2 1/16	17.20	43	35.74	2 1/16	26.00
13	10.90	2 1/16	7.50	23	19.16	2 1/16	12.50	33	27.45	2 1/16	18.00	44	36.57	2 1/16	26.80
14	11.72	2 1/16	8.00	24	19.99	2 1/16	13.00	34	28.28	2 1/16	18.80	46	38.23	2 1/16	28.60
For Griplock Chains No. 282 (See foot note)															
5	5.23	1 1/16	\$4.20	14	13.82	2 1/16	\$9.60	23	22.58	2 1/16	\$15.00	32	31.37	2 1/16	\$22.80
6	6.15	1 1/16	4.80	15	14.79	2 1/16	10.20	24	23.56	2 1/16	15.60	33	32.35	2 1/16	23.80
7	7.09	1 1/16	5.40	16	15.76	2 1/16	10.80	25	24.53	2 1/16	16.40	34	33.33	3 1/16	25.00
8	8.04	2 1/16	6.00	17	16.73	2 1/16	11.40	26	25.51	2 1/16	17.20	35	34.30	3 1/16	26.50
9	8.99	2 1/16	6.60	18	17.71	2 1/16	12.00	27	26.49	2 1/16	18.00	36	35.28	3 1/16	28.00
10	9.95	2 1/16	7.20	19	18.68	2 1/16	12.60	28	27.46	2 1/16	18.80	37	36.26	3 1/16	29.50
11	10.91	2 1/16	7.80	20	19.66	2 1/16	13.20	29	28.44	2 1/16	19.80	38	37.24	3 1/16	31.00
12	11.88	2 1/16	8.40	21	20.63	2 1/16	13.80	30	29.42	2 1/16	20.80	39	38.21	3 1/16	32.50
13	12.85	2 1/16	9.00	22	21.61	2 1/16	14.40	31	30.39	2 1/16	21.80	40	39.19	3 1/16	34.00



## INSTRUCTIONS FOR ORDERING GEARS

### SHOWN ON FOLLOWING PAGES

**NOTE:** All prices given are for cast iron gears, with cast teeth. Other materials, or cut teeth are special.

**IMPORTANT:** Cast Iron Gears are not returnable for credit.

When ordering Gears state:

1. Pattern Number.
2. No. of teeth.
3. D'=Pitch Diameter.
4. F=Width of Face.
5. Pitch— $\left\{ \begin{array}{l} \text{Circular=C} \\ \text{Diametral=(No. of teeth to each} \\ \text{inch of pitch diameter.)} \end{array} \right.$
6. B=Bore.
7. Whether keyseated or setscrewed. If keyseated whether straight or taper. Give width and depth of keyseat. In case of taper keyseat where

hub is not located centrally, be sure to state from which end of hub key drives.

8. L=Length of hub.

Also special information for different types of gears as noted under each heading.

When ordering Gears to replace old ones, state in addition to above:

1. D=Outside Diameter.
2. P=Pitch.

If the pitch cannot be determined then send an outline of the shape and size of the teeth. This can be made by placing a piece of stiff paper or cardboard against the teeth and drawing their outline with a sharp pencil.

By giving the above information complete, errors and delay will be avoided.

Max. Std. Bore Inch	LIST EXTRA FOR BORES LARGER THAN "LARGEST AT REGULAR PRICE"—ADDITIONAL TO STANDARD LIST																HUB LENGTH		List Extra for Both Keyseating and Boreseating	
	When bore wanted does not exceed—																Max. Std. Ins.	List Extra per Inch More		
	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>8</sub>	2	2 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>				
1 <sup>1</sup> / <sub>16</sub>	\$0.20	\$0.50	\$1.10	\$1.60	\$2.20	\$2.70	\$3.20	\$3.80	\$5.10	....	....	....	....	....	....	....	1 <sup>1</sup> / <sub>2</sub>	\$0.30	Up to 1 <sup>1</sup> / <sub>2</sub>	\$0.50
1 <sup>1</sup> / <sub>8</sub>	....	.30	.90	1.40	2.00	2.50	3.00	3.60	4.90	....	....	....	....	....	....	....	1 <sup>3</sup> / <sub>8</sub>	.30	1 <sup>1</sup> / <sub>2</sub> to 1 <sup>3</sup> / <sub>8</sub>	.50
1 <sup>1</sup> / <sub>4</sub>	....	....	.60	1.10	1.70	2.20	2.70	3.30	4.60	\$6.40	....	....	....	....	....	....	1 <sup>1</sup> / <sub>4</sub>	.30	1 <sup>3</sup> / <sub>8</sub> to 1 <sup>1</sup> / <sub>4</sub>	.50
1 <sup>3</sup> / <sub>8</sub>	....	....	....	.50	1.10	1.60	2.10	2.70	4.00	5.80	\$8.30	....	....	....	....	....	1 <sup>1</sup> / <sub>4</sub>	.40	1 <sup>1</sup> / <sub>4</sub> to 1 <sup>1</sup> / <sub>4</sub>	.50
1 <sup>1</sup> / <sub>2</sub>	....	....	....	....	.60	1.10	1.60	2.20	3.50	5.30	7.80	\$10.30	....	....	....	....	1 <sup>1</sup> / <sub>2</sub>	.40	1 <sup>1</sup> / <sub>4</sub> to 1 <sup>1</sup> / <sub>2</sub>	.90
2 <sup>1</sup> / <sub>16</sub>	....	....	....	....	....	.50	1.00	1.60	2.90	4.70	7.20	9.70	\$13.70	....	....	....	2 <sup>3</sup> / <sub>8</sub>	.50	2 to 2 <sup>3</sup> / <sub>8</sub>	.90
2 <sup>1</sup> / <sub>8</sub>	....	....	....	....	....	....	.50	1.10	2.40	4.20	6.70	9.20	13.20	\$17.60	....	....	2 <sup>1</sup> / <sub>2</sub>	.50	2 <sup>3</sup> / <sub>8</sub> to 2 <sup>1</sup> / <sub>2</sub>	.90
2 <sup>1</sup> / <sub>4</sub>	....	....	....	....	....	....	....	.60	1.90	3.70	6.20	8.70	12.70	17.10	\$20.70	....	2 <sup>1</sup> / <sub>4</sub>	.60	2 <sup>1</sup> / <sub>2</sub> to 2 <sup>1</sup> / <sub>4</sub>	.90
2 <sup>3</sup> / <sub>8</sub>	....	....	....	....	....	....	....	....	1.30	3.10	5.60	8.10	12.10	16.50	20.10	\$26.10	2 <sup>1</sup> / <sub>2</sub>	.70	2 <sup>3</sup> / <sub>8</sub> to 2 <sup>1</sup> / <sub>2</sub>	1.25
2 <sup>1</sup> / <sub>2</sub>	....	....	....	....	....	....	....	....	....	1.80	4.30	6.80	10.80	15.20	18.80	24.80	3 <sup>1</sup> / <sub>8</sub>	.70	3 to 3 <sup>1</sup> / <sub>8</sub>	1.25
3 <sup>1</sup> / <sub>16</sub>	....	....	....	....	....	....	....	....	....	....	2.50	5.00	9.00	13.40	17.00	23.00	3 <sup>1</sup> / <sub>8</sub>	1.00	3 <sup>1</sup> / <sub>8</sub> to 3 <sup>1</sup> / <sub>16</sub>	1.25
3 <sup>1</sup> / <sub>8</sub>	....	....	....	....	....	....	....	....	....	....	....	2.50	6.50	10.90	14.50	20.50	4 <sup>1</sup> / <sub>8</sub>	1.20	3 <sup>1</sup> / <sub>8</sub> to 4 <sup>1</sup> / <sub>8</sub>	1.90
3 <sup>1</sup> / <sub>4</sub>	....	....	....	....	....	....	....	....	....	....	....	....	4.00	8.40	12.00	18.00	4 <sup>1</sup> / <sub>4</sub>	1.40	4 <sup>1</sup> / <sub>8</sub> to 5 <sup>1</sup> / <sub>8</sub>	2.50
3 <sup>3</sup> / <sub>8</sub>	....	....	....	....	....	....	....	....	....	....	....	....	....	4.40	8.00	14.00	5 <sup>1</sup> / <sub>8</sub>	1.70	5 <sup>1</sup> / <sub>8</sub> to 6 <sup>1</sup> / <sub>8</sub>	3.40
3 <sup>1</sup> / <sub>2</sub>	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3.60	9.60	5 <sup>1</sup> / <sub>2</sub>	2.00	7 to 8	4.40

### FOR FACING BOTH ENDS OF HUBS

All of our cast spur gears are faced on one end of the hub, and all of our cast Bevel and Mitre gears are faced on the back side of the hub without charge. When it is desired to have both ends of the hub faced on cast iron spur gears, the following extra charge is to be added to the list.

Pitch Diameter of Gear Inches	PITCH INCHES			
	1 and less	1 1/2 to 1 1/2	1 1/2 to 2	2 1/4 to 3
Up to 9	List Extra \$ .70	List Extra \$1.10	List Extra \$1.65	List Extra \$2.50
9.01 to 15	.85	1.45	1.85	2.75
15.01 to 20	1.15	1.60	2.20	3.05
20.01 to 30	1.80	2.25	2.85	3.75
30.01 to 42	2.50	3.05	3.80	4.95
42.01 to 60	3.30	4.05	5.10	6.60

### LIST EXTRA FOR SPLIT GEARS

For SPLIT Gears add 20% to regular prices.

### STANDARD KEYWAYS FOR GEARS

Bore, Inches	Size of Keyway		Bore, Inches	Size of Keyway	
	Width	Depth		Width	Depth
3/4 to 1 1/4 incl.	1/4	1/8	4 1/2 to 5 1/4 incl.	1 1/4	3/8
1 1/4 to 1 3/4 incl.	3/8	3/16	5 1/4 to 5 3/4 incl.	1 3/8	1/2
1 3/4 to 2 1/4 incl.	1/2	1/4	5 3/4 to 6 1/4 incl.	1 1/2	3/4
2 1/4 to 2 3/4 incl.	5/8	5/16	6 1/4 to 7 1/4 incl.	1 3/4	3/4
2 3/4 to 3 1/4 incl.	3/4	3/8	7 1/4 to 8 1/4 incl.	2	3/4
3 1/4 to 3 3/4 incl.	7/8	7/16	8 1/4 to 9 1/4 incl.	2 1/4	3/4
3 3/4 to 4 1/4 incl.	1	1/2	9 1/4 to 10 1/4 incl.	2 3/4	3/4
4 1/4 to 4 3/4 incl.	1 1/4	9/16	10 1/4 to 11 1/4 incl.	2 3/4	3/4

### CAST IRON SPUR GEAR RACKS

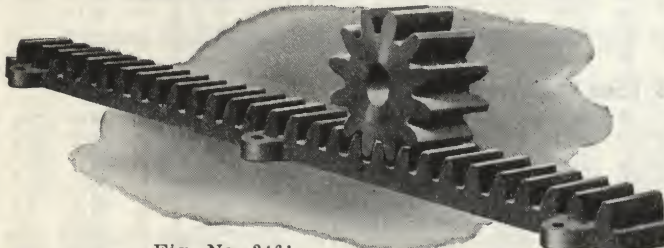


Fig. No. 2461

These racks can be used with any of our standard Spur Gears of the same pitch.

LIST PRICES PER FOOT			LIST PRICES PER FOOT		
Pitch, Inches	Face, Inches	List Per Foot	Pitch, Inches	Face, Inches	List Per Foot
1/2	1 1/4	\$1.20	1 1/4	3 1/4	\$3.20
5/8	1 1/2	1.60	1 1/2	4	4.00
3/4	1 3/4	1.80	1 3/4	5	5.00
7/8	2 1/4	2.00	2	6	6.00
1	2 1/2	2.70			

**DISCOUNT** .....45% OFF

We have a large assortment of Spur Gear Rack patterns and are in position to furnish any length or pitch desired.

### RAWHIDE PINIONS

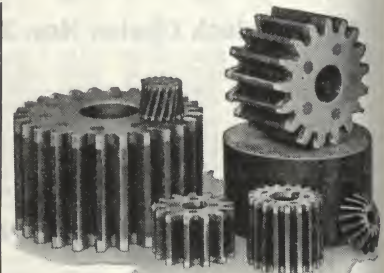


Fig. No. 2440

Furnished in any type desired, such as spur, bevel, mitre, or spiral. **PRICES.....ON APPLICATION**



## CAST IRON MOLDED TOOTH SPUR GEARS

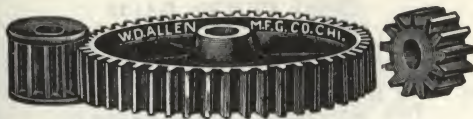


Fig. No. 652.

Used on shafts running in line with each other. Our spur gears of the same pitch are interchangeable. Made from stock patterns, hubs of standard length and faced on one end. List prices include either one keyseat or two set screws. For both

keyseat and set screws an extra charge will apply.

There is also an extra charge for the following:

Bores larger than standard.

Extra long hub.

Split gears.

Hubs bored on both ends.

Only the most called for sizes are listed here.

We can furnish practically any size up to 3 1/2 in. pitch, 10 1/2 in. face, from stock patterns. Send us your specifications.

Gears of special design and material made to order. Prices on receipt of specifications.

(New List Prices Adopted Sept. 1, 1922)

## LIST PRICES EACH

## 1/2 Inch Pitch—1 1/4 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
4068	12	1.91	3/4	.50	\$2.80
4069	13	2.07	3/4	.54	2.90
4070	14	2.23	3/4	.58	2.90
4071	15	2.39	3/4	.63	3.00
139	16	2.55	15/16	.67	3.00
4072	17	2.70	15/16	.71	3.10
161	18	2.86	15/16	.75	3.10
4073	19	3.02	15/16	.79	3.20
4074	20	3.18	15/16	.83	3.20
4075	21	3.34	15/16	.87	3.30
4076	22	3.50	15/16	.92	3.30
4077	23	3.66	15/16	.96	3.40
21	24	3.82	15/16	1.00	3.40
4078	25	3.98	15/16	1.04	3.50
4079	26	4.14	15/16	1.08	3.50
4080	27	4.30	15/16	1.13	3.60
290	28	4.46	1 1/16	1.17	3.60
4081	29	4.62	1 1/16	1.21	3.70
4082	31	4.93	1 1/16	1.29	3.80
261	32	5.09	1 1/16	1.33	3.80
4083	33	5.25	1 1/16	1.37	3.90
4084	34	5.41	1 1/16	1.42	3.90
4085	35	5.57	1 1/16	1.46	4.00
4086	36	5.73	1 1/16	1.50	4.10

## LIST PRICES EACH

## 3/4 Inch Pitch—1 3/4 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
650	26	6.21	1 3/8	1.63	\$5.70
651	27	6.45	1 3/8	1.69	5.90
652	28	6.68	1 3/8	1.75	6.00
653	29	6.92	1 3/8	1.81	6.20
654	30	7.16	1 3/8	1.87	6.30
655	31	7.40	1 3/8	1.94	6.50
656	32	7.64	1 3/8	2.00	6.60
657	33	7.88	1 3/8	2.06	6.80
658	34	8.12	1 3/8	2.13	7.00
659	35	8.36	1 3/8	2.19	7.20
660	36	8.59	1 3/8	2.25	7.40
661	37	8.83	1 3/8	2.31	7.60
662	38	9.07	1 3/8	2.37	7.80
663	39	9.31	1 3/8	2.44	8.00
664	40	9.55	1 3/8	2.50	8.20
665	41	9.79	1 3/8	2.56	8.40
666	42	10.03	1 3/8	2.63	8.60
667	43	10.27	1 3/8	2.70	8.80
668	44	10.50	1 3/8	2.75	9.00
669	45	10.74	1 3/8	2.81	9.20
670	46	10.98	1 3/8	2.88	9.40
671	47	11.22	1 3/8	2.94	9.60
672	48	11.46	1 3/8	3.00	9.80
673	49	11.70	1 3/8	3.06	10.00
674	50	11.94	1 3/8	3.13	10.20

## 5/8 Inch Pitch—1 1/2 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
4109	10	1.99	3/4	.52	\$3.00
4110	11	2.19	3/4	.57	3.10
135	12	2.39	15/16	.63	3.20
22	13	2.59	15/16	.68	3.30
4111	14	2.79	15/16	.73	3.40
153	15	2.98	15/16	.78	3.50
23	16	3.18	15/16	.83	3.60
587	17	3.38	15/16	.88	3.70
4514	18	3.58	1 1/16	.94	3.80
4112	19	3.78	1 1/16	.99	3.90
141	20	3.98	1 1/16	1.04	4.00
4113	21	4.18	1 1/16	1.09	4.10
4513	22	4.38	1 1/16	1.14	4.20
198	23	4.57	1 1/16	1.19	4.30
4114	24	4.77	1 1/16	1.25	4.40
4115	25	4.97	1 1/16	1.30	4.50
24	26	5.17	1 1/16	1.35	4.60
4116	27	5.37	1 1/16	1.40	4.70
28	28	5.57	1 1/16	1.46	4.80
29	29	5.77	1 1/16	1.51	4.90

## 3/4 Inch Pitch—1 3/4 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
644	10	2.39	1 1/8	.63	\$3.50
645	11	2.63	1 1/8	.69	3.60
646	12	2.86	1 1/8	.75	3.70
209	13	3.10	1 1/8	.82	3.80
108	14	3.34	1 1/8	.88	3.90
202	15	3.58	1 1/8	.94	4.10
20	16	3.82	1 1/8	1.00	4.20
27	17	4.06	1 1/8	1.06	4.40
647	18	4.30	1 1/8	1.13	4.50
71	19	4.54	1 1/8	1.19	4.70
203	20	4.77	1 1/8	1.25	4.80
648	21	5.01	1 1/8	1.31	5.00
194	22	5.25	1 1/8	1.37	5.10
195	23	5.49	1 1/8	1.44	5.30
24	24	5.73	1 1/8	1.50	5.40
25	25	5.97	1 1/8	1.56	5.60

## 7/8 Inch Pitch—2 1/4 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
684	10	2.79	1 3/8	.73	\$4.30
224	11	3.06	1 3/8	.80	4.50
342	12	3.34	1 3/8	.87	4.60
123	13	3.62	1 3/8	.95	4.80
157	14	3.90	1 3/8	1.02	5.00
143	15	4.18	1 3/8	1.09	5.20
192	16	4.46	1 3/8	1.17	5.40
685	17	4.74	1 3/8	1.24	5.60
145	18	5.01	1 3/8	1.31	5.80
5169	19	5.29	1 3/8	1.38	6.00
11	20	5.57	1 3/8	1.46	6.20
559	21	5.85	1 3/8	1.53	6.40
125	22	6.13	1 3/8	1.60	6.60
686	23	6.41	1 3/8	1.67	6.80
687	24	6.68	1 3/8	1.75	7.00
688	25	6.96	1 3/8	1.83	7.20
181	26	7.24	1 3/8	1.91	7.40
196	27	7.52	1 3/8	1.99	7.60
5170	28	7.80	1 3/8	2.07	7.80
197	29	8.08	1 3/8	2.15	8.00
5171	30	8.36	1 3/8	2.23	8.20
198	31	8.64	1 3/8	2.31	8.40
5172	32	8.92	1 3/8	2.39	8.60
5173	33	9.20	1 3/8	2.47	8.80
4722	34	9.48	1 3/8	2.55	9.00
124	35	9.76	1 3/8	2.63	9.20
689	36	10.04	1 3/8	2.71	9.40
690	37	10.32	1 3/8	2.79	9.60
691	38	10.60	1 3/8	2.87	9.80
12	39	10.88	1 3/8	2.95	10.00
692	40	11.16	1 3/8	3.03	10.20
5007	41	11.44	1 3/8	3.11	10.40
146	42	11.72	1 3/8	3.19	10.60
693	43	12.00	1 3/8	3.27	10.80
5008	44	12.28	1 3/8	3.35	11.00
4810	45	12.56	1 3/8	3.43	11.20
694	46	12.84	1 3/8	3.51	11.40
695	47	13.12	1 3/8	3.59	11.60
696	48	13.40	1 3/8	3.67	11.80
5009	49	13.68	1 3/8	3.75	12.00
5010	50	13.96	1 3/8	3.83	12.20
5011	51	14.24	1 3/8	3.91	12.40
5012	52	14.52	1 3/8	4.00	12.60
5013	53	14.80	1 3/8	4.08	12.80
5014	54	15.08	1 3/8	4.17	13.00
5015	55	15.36	1 3/8	4.25	13.20
5016	56	15.64	1 3/8	4.34	13.40
5017	57	15.92	1 3/8	4.42	13.60
5018	58	16.20	1 3/8	4.51	13.80
5019	59	16.48	1 3/8	4.59	14.00
5020	60	16.76	1 3/8	4.68	14.20
5021	61	17.04	1 3/8	4.76	14.40
5022	62	17.32	1 3/8	4.85	14.60
5023	63	17.60	1 3/8	4.93	14.80
5024	64	17.88	1 3/8	5.02	15.00
5025	65	18.16	1 3/8	5.10	15.20
5026	66	18.44	1 3/8	5.19	15.40
5027	67	18.72	1 3/8	5.27	15.60
5028	68	19.00	1 3/8	5.36	15.80
5029	69	19.28	1 3/8	5.44	16.00
5030	70	19.56	1 3/8	5.53	16.20

Continued on Page Following

**DISCOUNT 45% OFF**



## CAST IRON MOLDED TOOTH SPUR GEARS—Continued

## LIST PRICES EACH

## 1 Inch Pitch—2½ Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
206	10	3.18	1 ⅜	.83	\$5.10
226	11	3.50	1 ⅝	.91	5.30
109	12	3.82	1 ⅞	1.00	5.50
144	13	4.14	1 ⅞	1.08	5.80
151	14	4.46	1 ⅞	1.17	6.00
16	15	4.77	1 ⅞	1.25	6.30
129	16	5.09	1 ⅞	1.33	6.50
268	17	5.41	1 ⅞	1.42	6.80
107	18	5.73	1 ⅞	1.50	7.00
502	19	6.05	1 ⅞	1.58	7.30
119	20	6.37	1 ⅞	1.67	7.50
140	21	6.68	1 ⅞	1.75	7.80
551	22	7.00	1 ⅞	1.83	8.00
77	23	7.32	1 ⅞	1.92	8.30
550	24	7.64	1 ⅞	2.00	8.60
14	25	7.96	1 ⅞	2.08	8.90
230	26	8.28	1 ⅞	2.17	9.20
4015	27	8.59	1 ⅞	2.25	9.50
267	28	8.91	1 ⅞	2.33	9.80
4016	29	9.23	1 ⅞	2.42	10.10
207	30	9.55	2 ⅜	2.50	10.40
4017	31	9.87	2 ⅜	2.58	10.70
4018	32	10.19	2 ⅜	2.67	11.00
4019	33	10.50	2 ⅜	2.75	11.30
268	34	10.82	2 ⅜	2.83	11.60
4020	35	11.14	2 ⅜	2.92	11.90
110	36	11.46	2 ⅜	3.00	12.20
137	37	11.78	2 ⅜	3.08	12.50
4021	38	12.10	2 ⅜	3.17	12.80
518	39	12.41	2 ⅜	3.25	13.20
269	40	12.73	2 ⅜	3.33	13.50
4023	41	13.05	2 ⅜	3.42	13.90
270	42	13.37	2 ⅜	3.50	14.20
4024	43	13.69	2 ⅜	3.58	14.60
562	44	14.01	2 ⅜	3.67	14.90
506	45	14.32	2 ⅜	3.75	15.30
4025	46	14.64	2 ⅜	3.83	15.60
4026	47	14.96	2 ⅜	3.92	16.00
271	48	15.28	2 ⅜	4.00	16.30
4027	49	15.60	2 ⅜	4.08	16.70
15	50	15.92	2 ⅜	4.17	17.00
4028	51	16.23	2 ⅜	4.25	17.40
4029	52	16.55	2 ⅜	4.33	17.80
4030	53	16.87	2 ⅜	4.42	18.20
4031	54	17.19	2 ⅜	4.50	18.60
504	55	17.51	2 ⅜	4.58	19.00
505	56	17.83	2 ⅜	4.67	19.40
4032	57	18.14	2 ⅜	4.75	19.80
4033	58	18.46	2 ⅜	4.83	20.20
4034	59	18.78	2 ⅜	4.92	20.60

## 1¼ Inch Pitch—3¼ Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
245	10	3.98	1 ⅞	1.04	\$6.40
4134	11	4.38	1 ⅞	1.15	6.80
122	12	4.77	1 ⅞	1.25	7.10
160	13	5.17	1 ⅞	1.35	7.50
142	14	5.57	1 ⅞	1.46	7.90
113	15	5.97	1 ⅞	1.56	8.40
136	16	6.37	1 ⅞	1.67	8.80
204	17	6.76	1 ⅞	1.77	9.30
516	18	7.16	1 ⅞	1.87	9.70
517	19	7.56	2 ⅜	1.98	10.20
106	20	7.96	2 ⅜	2.08	10.60
10	21	8.36	2 ⅜	2.19	11.10
250	22	8.75	2 ⅜	2.29	11.50
275	23	9.15	2 ⅜	2.40	12.00
276	24	9.55	2 ⅜	2.50	12.50
519	25	9.95	2 ⅜	2.60	13.00
4135	26	10.35	2 ⅜	2.71	13.50
239	27	10.74	2 ⅜	2.81	14.00
520	28	11.14	2 ⅜	2.92	14.50
4136	29	11.54	2 ⅜	3.02	15.00
118	30	11.94	2 ⅜	3.13	15.50
4137	31	12.33	2 ⅜	3.23	16.00
4138	32	12.73	2 ⅜	3.33	16.50
4139	33	13.13	2 ⅜	3.44	17.00
4140	34	13.53	2 ⅜	3.54	17.50
218	35	13.93	2 ⅜	3.64	18.00
277	36	14.32	2 ⅜	3.75	18.50
4141	37	14.72	2 ⅜	3.85	19.00
4142	38	15.12	2 ⅜	3.96	19.50
4143	39	15.52	2 ⅜	4.06	20.00
121	40	15.92	2 ⅜	4.17	20.50
4144	41	16.31	2 ⅜	4.27	21.10
503	42	16.71	2 ⅜	4.37	21.70
4145	43	17.11	2 ⅜	4.48	22.30
4146	44	17.51	2 ⅜	4.58	22.90
560	45	17.91	2 ⅜	4.69	23.50

## LIST PRICES EACH

## 1⅛ Inch Pitch—3 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
79	11	3.94	1 ⅞	1.03	\$6.10
127	14	5.01	1 ⅞	1.31	7.10
81	15	5.37	1 ⅞	1.41	7.50
512	22	7.88	2 ⅜	2.06	9.30
214	29	10.39	2 ⅜	2.72	12.40
553	50	17.91	2 ⅜	4.69	21.20
274	60	21.40	2 ⅜	5.63	26.00
513	96	34.38	3 ⅜	9.00	46.80
366	122	43.69	3 ⅜	11.44	65.50

## 1⅜ Inch Pitch—3½ Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
82	11	4.81	1 ⅞	1.26	\$7.90
202	14	6.13	1 ⅞	1.60	9.20
281	28	12.26	2 ⅜	3.21	17.30
282	42	18.38	3 ⅜	4.81	26.30
83	68	29.76	3 ⅜	7.79	47.10
203	98	42.89	4 ⅜	11.23	77.50

## 1½ Inch Pitch—4 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
162	10	4.78	1 ⅞	1.25	\$8.50
4192	11	5.25	1 ⅞	1.37	9.00
163	12	5.73	1 ⅞	1.50	9.50
126	13	6.21	1 ⅞	1.63	10.10
138	14	6.68	2 ⅜	1.75	10.60
101	15	7.16	2 ⅜	1.87	11.30
117	16	7.64	2 ⅜	2.00	11.90
525	17	8.12	2 ⅜	2.13	12.60
102	18	8.59	2 ⅜	2.25	13.30
526	19	9.07	2 ⅜	2.37	14.00
164	20	9.55	2 ⅜	2.50	14.70
557	21	10.03	2 ⅜	2.63	15.40
528	22	10.50	2 ⅜	2.75	16.10
247	23	10.98	2 ⅜	2.87	16.80
165	24	11.46	2 ⅜	3.00	17.50
527	25	11.94	2 ⅜	3.13	18.30
216	26	12.41	2 ⅜	3.25	19.00
4193	27	12.89	2 ⅜	3.37	19.80
237	28	13.37	2 ⅜	3.50	20.50
166	29	13.85	2 ⅜	3.63	21.30
4194	30	14.32	3 ⅜	3.75	22.00
4195	31	14.80	3 ⅜	3.87	22.80
4196	32	15.28	3 ⅜	4.00	23.60
4197	33	15.76	3 ⅜	4.13	24.50
4198	34	16.23	3 ⅜	4.25	25.30
4199	35	16.71	3 ⅜	4.37	26.20
104	36	17.19	3 ⅜	4.50	27.00
574	37	17.67	3 ⅜	4.63	27.90
584	38	18.14	3 ⅜	4.75	28.70
4201	39	18.62	3 ⅜	4.87	29.00

## 1¾ Inch Pitch—5 Inch Face

Pattern No.	No. of Teeth	Pitch Diam. Inches	Largest Bore, Inches, at Regular Price	Pitch Circumference in Feet	List Each
252	10	5.57	2 ⅜	1.46	\$11.50
593	11	6.13	2 ⅜	1.60	12.20
168	12	6.68	2 ⅜	1.75	12.90
169	13	7.24	2 ⅜	1.90	13.70
149	14	7.80	2 ⅜	2.04	14.50
170	15	8.36	2 ⅜	2.19	15.50
171	16	8.91	2 ⅜	2.33	16.50
4244	17	9.47	2 ⅜	2.48	17.50
172	18	10.03	2 ⅜	2.63	18.50
4245	19	10.58	2 ⅜	2.77	19.80
285	20	11.14	2 ⅜	2.92	21.00
86	21	11.70	2 ⅜	3.06	22.30
4246	22	12.26	3 ⅜	3.21	23.50
4247	23	12.81	3 ⅜	3.35	24.80
173	24	13.37	3 ⅜	3.50	26.00
594	25	13.93	3 ⅜	3.65	27.30
256	26	14.48	3 ⅜	3.79	28.50
4248	27	15.04	3 ⅜	3.94	29.80
4249	28	15.60	3 ⅜	4.08	31.00
377	29	16.15	3 ⅜	4.23	32.30
254	30	16.71	3 ⅜	4.37	33.50
4250	31	17.27	3 ⅜	4.52	34.80
286	32	17.83	3 ⅜	4.67	36.00
582	33	18.38	3 ⅜	4.81	37.30
4251	34	18.94	3 ⅜	4.96	38.50
4252	35	19.50	3 ⅜	5.11	39.80
174	36	20.05	3 ⅜	5.25	41.00
4253	37	20.61	3 ⅜	5.40	42.30
4254	38	21.17	3 ⅜	5.54	43.50
4255	39	21.72	3 ⅜	5.69	44.80
205	40	22.28	4 ⅜	5.83	46.00
4256	41	22.84	4 ⅜	5.98	47.30
4257	42	23.40	4 ⅜	6.13	48.50
4258	43	23.95	4 ⅜	6.27	49.80
4259	44	24.51	4 ⅜	6.42	51.00
4260	45	25.07	4 ⅜	6.56	52.30
287	46	25.62	4 ⅜	6.71	53.50
4261	47	26.18	4 ⅜	6.85	55.00
564	48	26.74	4 ⅜	7.00	56.50

DISCOUNT ..... 45% OFF



# CAST IRON MOLDED TOOTH BEVEL GEARS IN PAIRS

## INSTRUCTIONS FOR ORDERING BEVEL GEARS

In addition to the information required as noted on first page of gears, also specify:

1. X=Backing.

Also when ordering gears to replace old ones, specify in addition:

1. What numbers or letters appear on old casting or gears.

2. Outside diameter at large end.

3. Outline sketch of shape and size of teeth at both large and small end of gear.



Fig. No. 653.

A pair of bevel gears consists of two gears of different diameters running together at right angles, the smaller gear being called the pinion.

We can furnish other bevel gears up to  $3\frac{1}{2}$  in. pitch from stock patterns. Send us your specifications.

### LIST PRICES EACH

#### $\frac{1}{2}$ Inch Pitch

Pat. No.	No. of Teeth	Pitch Diam., Ins.	Face, Ins.	Largest Bore, Inches, at Regular Price	Pitch Circum. in Feet	Back-ing	Speed Ratio	List Each
388	24	3.82	$1\frac{1}{4}$	$1\frac{1}{16}$	1.00	$\frac{5}{8}$	1.14 to 1	\$ 4.30
387	21	3.34	$1\frac{1}{4}$	$1\frac{1}{16}$	.87	$\frac{5}{8}$	1	4.00
637	39	6.21	$\frac{7}{8}$	$1\frac{1}{16}$	1.63	$\frac{3}{4}$	1.86 to 1	5.50
636	21	3.34	$\frac{7}{8}$	$\frac{3}{4}$	.87	$\frac{3}{4}$	1	3.70

#### $\frac{5}{8}$ Inch Pitch

390	30	5.97	$1\frac{1}{4}$	$1\frac{1}{16}$	1.57	$\frac{3}{4}$	1.67 to 1	\$ 5.80
389	18	3.58	$1\frac{1}{4}$	$1\frac{1}{16}$	.94	$\frac{3}{8}$	1	3.90

#### $\frac{3}{4}$ Inch Pitch

398	60	14.32	2	$1\frac{1}{16}$	3.75	$1\frac{1}{2}$	1.50 to 1	\$15.50
397	40	9.55	2	$1\frac{1}{16}$	2.50	$\frac{7}{8}$	1	10.00
424	21	5.01	$1\frac{1}{2}$	$1\frac{1}{16}$	1.31	$\frac{3}{4}$	1.62 to 1	5.00
423	13	3.10	$1\frac{1}{2}$	$1\frac{1}{16}$	.81	$\frac{3}{8}$	1	3.40
222	34	8.12	2	$1\frac{1}{16}$	2.13	$\frac{7}{8}$	1.70 to 1	8.50
421	20	4.77	2	$1\frac{1}{16}$	1.25	$\frac{1}{2}$	1	5.00
42	42	10.03	2	$1\frac{1}{16}$	2.63	$1\frac{1}{2}$	2.00 to 1	10.50
41	21	5.01	2	$1\frac{1}{16}$	1.31	$\frac{5}{8}$	1	5.30
327	37	8.83	2	$1\frac{1}{16}$	2.31	$1\frac{1}{2}$	2.47 to 1	9.30
326	15	3.58	2	$1\frac{1}{16}$	.94	$\frac{1}{2}$	1	3.90
623	51	12.17	$2\frac{1}{2}$	$1\frac{1}{16}$	3.18	$1\frac{3}{4}$	2.83 to 1	13.80
622	18	4.30	$2\frac{1}{2}$	$1\frac{1}{16}$	1.13	$\frac{5}{8}$	1	4.90
450	45	10.74	$1\frac{3}{4}$	$1\frac{1}{16}$	2.81	$1\frac{1}{4}$	3.00 to 1	11.00
449	15	3.58	$1\frac{3}{4}$	$1\frac{1}{16}$	.94	$\frac{1}{2}$	1	3.80
400	48	11.46	2	$1\frac{1}{16}$	3.00	$1\frac{1}{4}$	3.00 to 1	12.00
399	16	3.82	2	$1\frac{1}{16}$	1.00	$\frac{1}{2}$	1	4.10
329	73	17.43	2	$1\frac{1}{16}$	4.56	2	3.32 to 1	19.80
328	22	5.25	2	$1\frac{1}{16}$	1.37	$\frac{3}{8}$	1	5.50
345	67	16.00	2	$1\frac{1}{16}$	4.19	$1\frac{1}{2}$	3.94 to 1	17.70
344	17	4.06	2	$1\frac{1}{16}$	1.07	$\frac{5}{8}$	1	4.30

#### 1 Inch Pitch

631	18	5.73	$2\frac{1}{2}$	$1\frac{1}{16}$	1.50	$\frac{3}{4}$	1.13 to 1	\$ 6.50
630	16	5.09	$2\frac{1}{2}$	$1\frac{1}{16}$	1.33	$\frac{5}{8}$	1	5.80
464	45	14.32	$2\frac{1}{2}$	$2\frac{3}{16}$	3.75	$1\frac{1}{2}$	1.18 to 1	16.80
463	38	12.10	$2\frac{1}{2}$	$1\frac{1}{16}$	3.17	$1\frac{1}{4}$	1	14.00
468	67	21.33	$2\frac{1}{2}$	$2\frac{3}{16}$	5.58	$1\frac{3}{8}$	1.34 to 1	27.00
467	50	15.92	$2\frac{1}{2}$	$2\frac{3}{16}$	4.17	$1\frac{1}{8}$	1	18.90
489	31	9.87	$2\frac{1}{4}$	$1\frac{1}{16}$	2.58	1	1.48 to 1	11.00
490	21	6.68	$2\frac{1}{4}$	$1\frac{1}{16}$	1.75	$\frac{3}{4}$	1	7.40
428	57	18.14	$2\frac{1}{2}$	$2\frac{3}{16}$	4.75	$1\frac{3}{8}$	1.50 to 1	22.10
427	38	12.10	$2\frac{1}{2}$	$1\frac{1}{16}$	3.17	1	1	14.00
448	38	12.10	$2\frac{1}{2}$	$1\frac{1}{16}$	3.17	$1\frac{1}{4}$	1.52 to 1	14.00
447	25	7.96	$2\frac{1}{2}$	$1\frac{1}{16}$	2.08	$\frac{3}{4}$	1	9.00
331	63	20.05	$2\frac{1}{2}$	$2\frac{7}{16}$	5.25	$2\frac{1}{4}$	1.75 to 1	25.00
330	36	11.46	$2\frac{1}{2}$	$1\frac{1}{16}$	3.00	1	1	13.20
456	32	10.19	$2\frac{1}{2}$	$1\frac{1}{16}$	2.67	$1\frac{3}{4}$	2.00 to 1	11.60
455	16	5.09	$2\frac{1}{2}$	$1\frac{1}{16}$	1.33	$\frac{5}{8}$	1	5.80
442	48	15.28	$2\frac{1}{2}$	$2\frac{3}{16}$	4.00	$2\frac{1}{4}$	2.00 to 1	18.00
441	24	7.64	$2\frac{1}{2}$	$1\frac{1}{16}$	2.00	$\frac{7}{8}$	1	8.60

### LIST PRICES EACH

#### 1 Inch Pitch—Continued

Pat. No.	No. of Teeth	Pitch Diam., Ins.	Face, Ins.	Largest Bore, Inches, at Regular Price	Pitch Circum. in Feet	Back-ing	Speed Ratio	List Each
454	60	19.10	$2\frac{1}{2}$	$2\frac{3}{16}$	5.00	2	2.00 to 1	\$23.50
453	30	9.55	$2\frac{1}{2}$	$1\frac{1}{16}$	2.50	$\frac{1}{2}$	1	10.80
394	40	12.73	2	$1\frac{1}{16}$	3.33	$1\frac{1}{2}$	2.67 to 1	14.20
393	15	4.77	2	$1\frac{1}{16}$	1.25	$\frac{1}{2}$	1	5.20
402	55	17.51	$2\frac{1}{2}$	$2\frac{3}{16}$	4.58	$2\frac{1}{8}$	2.75 to 1	21.20
401	20	6.37	$2\frac{1}{2}$	$1\frac{1}{16}$	1.67	$1\frac{1}{8}$	1	7.20
430	48	15.28	$2\frac{1}{2}$	$2\frac{3}{16}$	4.00	$2\frac{1}{2}$	3.00 to 1	13.00
429	16	5.09	$2\frac{1}{2}$	$1\frac{1}{16}$	1.33	$\frac{3}{8}$	1	5.80
333	43	13.69	$2\frac{1}{2}$	$2\frac{3}{16}$	3.58	$2\frac{3}{4}$	3.31 to 1	16.00
332	13	4.14	$2\frac{1}{2}$	$1\frac{1}{16}$	1.08	$\frac{1}{2}$	1	4.80
44	76	24.19	$2\frac{1}{2}$	$2\frac{1}{16}$	6.33	3	4.00 to 1	31.70
43	19	6.05	$2\frac{1}{2}$	$1\frac{1}{16}$	1.58	$\frac{7}{8}$	1	6.90
596	76	24.19	$2\frac{1}{2}$	$2\frac{1}{16}$	6.33	3	4.75 to 1	31.70
595	16	5.09	$2\frac{1}{2}$	$1\frac{1}{16}$	1.33	$\frac{3}{4}$	1	5.80
336	84	26.74	$2\frac{1}{2}$	$2\frac{1}{16}$	7.00	4	6.00 to 1	36.50
337	14	4.46	$2\frac{1}{2}$	$1\frac{1}{16}$	1.17	$\frac{3}{4}$	1	5.10

#### $1\frac{1}{8}$ Inch Pitch

618	24	8.59	$2\frac{1}{2}$	$1\frac{1}{16}$	2.25	$1\frac{1}{8}$	1.50 to 1	\$ 9.80
617	16	5.73	$2\frac{1}{2}$	$1\frac{1}{16}$	1.50	$\frac{3}{4}$	1	6.60
625	36	12.89	3	$2\frac{3}{16}$	3.37	2	2.00 to 1	16.40
624	18	6.45	3	$1\frac{1}{16}$	1.69	$\frac{3}{4}$	1	7.90

#### $1\frac{1}{4}$ Inch Pitch

482	26	10.35	3	$2\frac{3}{16}$	2.71	$1\frac{3}{4}$	1.37 to 1	\$13.50
481	19	7.56	3	$1\frac{1}{16}$	1.98	$\frac{3}{4}$	1	9.80
396	30	11.94	3	$2\frac{3}{16}$	3.13	2	1.50 to 1	15.70
395	20	7.96	3	$1\frac{1}{16}$	2.09	$\frac{7}{8}$	1	10.30
339	60	23.87	3	$2\frac{1}{16}$	6.25	$2\frac{3}{4}$	1.50 to 1	32.90
338	40	15.92	3	$2\frac{1}{16}$	4.17	1	1	21.10
46	60	23.87	3	$2\frac{1}{16}$	6.25	$2\frac{3}{4}$	1.94 to 1	32.90
45	31	12.33	3	$2\frac{1}{16}$	3.23	$1\frac{3}{4}$	1	16.20
420	40	15.92	3	$2\frac{7}{16}$	4.17	$2\frac{1}{2}$	2.00 to 1	21.10
419	20	7.96	3	$1\frac{1}{16}$	2.08	$\frac{7}{8}$	1	10.30
48	76	30.24	$3\frac{1}{4}$	$3\frac{7}{16}$	7.92	$2\frac{3}{4}$	2.00 to 1	45.00
47	38	15.12	$3\frac{1}{4}$	$2\frac{7}{16}$	3.96	1	1	20.40
472	69	27.45	$3\frac{1}{4}$	$3\frac{7}{16}$	7.19	$2\frac{3}{4}$	2.03 to 1	39.80
471	34	13.53	$3\frac{1}{4}$	$2\frac{7}{16}$	3.54	$1\frac{1}{8}$	1	18.20
436	27	10.74	3	$2\frac{3}{16}$	2.81	$1\frac{1}{2}$	2.08 to 1	14.10
435	13	5.17	3	$1\frac{1}{16}$	1.35	$\frac{1}{2}$	1	6.50
4011	46	18.30	3	$2\frac{1}{16}$	4.79	$1\frac{3}{4}$	2.42 to 1	24.50
4012	19	7.56	3	$1\frac{1}{16}$	1.98	$\frac{3}{4}$	1	9.80
418	76	30.24	$3\frac{1}{4}$	$3\frac{7}{16}$	7.92	3	2.53 to 1	45.00
417	30	11.94	$3\frac{1}{4}$	$2\frac{7}{16}$	3.13	1	1	16.00
633	52	20.69	$3\frac{1}{2}$	$2\frac{1}{16}$	5.42	2	2.60 to 1	29.70
632	20	7.96	$3\frac{1}{2}$	$1\frac{1}{16}$	2.08	$\frac{3}{4}$	1	10.90
484	40	15.92	$3\frac{1}{4}$	$2\frac{7}{16}$	4.17	$1\frac{3}{4}$	2.67 to 1	21.50
493	15	5.97	$3\frac{1}{4}$	$1\frac{1}{16}$	1.56	$\frac{3}{8}$	1	7.80

DISCOUNT

45% OFF



## CAST IRON MOLDED TOOTH BEVEL GEARS IN PAIRS—Continued

## LIST PRICES EACH

## 1 1/4 Inch Pitch—Continued

Pat. No.	No. of Teeth	Pitch Diam., Ins.	Face, Ins.	Largest Bore, Inches, at Regular Price	Pitch Circum. in Feet	Back-ing	Speed Ratio	List Each
426	74	29.44	3	3 1/16	7.70	3	2.96 to 1	\$42.60
425	25	9.95	3	1 1/16	2.60	3/4	1	13.00
392	45	17.91	3	2 1/16	4.69	1 1/4	3.00 to 1	23.90
391	15	5.97	3	1 1/16	1.56	3/4	1	7.60
340	60	23.87	3 1/2	2 3/16	6.25	3 3/4	3.33 to 1	34.90
341	18	7.16	3 1/2	1 1/16	1.87	5/8	1	9.80
92	60	23.87	3 1/4	2 3/16	6.25	4	3.53 to 1	33.60
91	17	6.76	3 1/4	2 1/16	1.77	1 3/8	1	8.90
434	60	23.87	3	2 1/16	6.25	2 3/4	4.00 to 1	32.90
433	15	5.97	3	1 1/16	1.56	1 1/2	1	7.60

## 1 3/8 Inch Pitch

Pat. No.	No. of Teeth	Pitch Diam., Ins.	Face, Ins.	Largest Bore, Inches, at Regular Price	Pitch Circum. in Feet	Back-ing	Speed Ratio	List Each
412	48	20.01	3 1/2	3 1/16	5.24	2 1/2	1.14 to 1	\$30.50
411	42	18.38	3 1/2	2 1/16	4.81	2	1	26.50
474	55	24.07	3 1/2	3 1/16	6.30	2 1/2	1.25 to 1	35.50
473	44	19.26	3 1/2	3 1/16	5.04	1 1/2	1	27.90
410	109	47.71	3 1/2	4 1/16	12.49	6	6.06 to 1	96.50
409	18	7.88	3 1/2	2 1/16	2.06	1 3/8	1	11.50
466	85	37.20	3 1/2	3 15/16	9.74	4 1/4	7.08 to 1	63.50
465	12	5.25	3 1/2	1 1/16	1.37	1 3/8	1	8.00

We can furnish other bevel gears from stock patterns up to 3 1/2 in. pitch. Send us your specifications.

## DISCOUNT

45% OFF

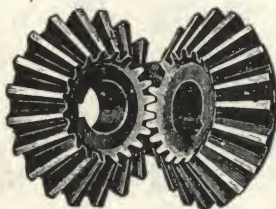
MITRE GEARS  
CAST IRON

Fig. No. 654

By a pair of mitre gears we mean two gears that are alike in size and are intended to work at right angles to each other.

We can furnish other sizes than those listed from stock patterns. Send us your specifications.

INSTRUCTIONS FOR ORDERING  
MITRE GEARS

In addition to the information required as noted on first page of gears, also specify:

## 1. X=Backing.

Also when ordering gears to replace old ones, specify in addition:

1. What numbers or letters appear on old casting or gears.

2. Outside diameter at large end.

3. Outline sketch of shape and size of teeth at both large and small end of gear.

## DISCOUNT

45% OFF

## 1 1/2 Inch Pitch

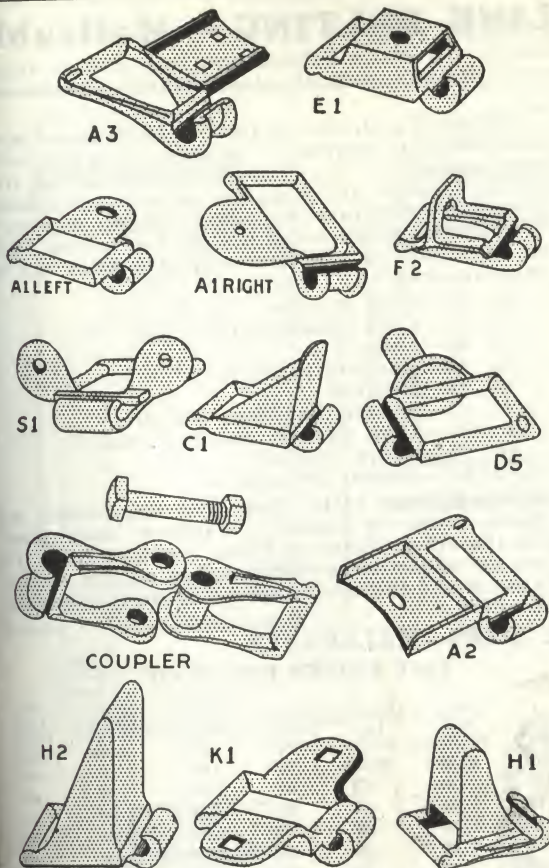
Pat. No.	No. of Teeth	Pitch Diam., Ins.	Face, Ins.	Largest Bore, Inches, at Regular Price	Pitch Circum. in Feet	Back-ing	Speed Ratio	List Each
478	40	19.10	4	3 1/16	5.00	2 1/4	1.33 to 1	\$31.00
477	30	14.32	4	2 1/16	3.75	1 1/4	1	23.00
414	52	24.83	4	3 1/16	6.50	2 1/4	1.33 to 1	42.00
413	39	18.62	4	2 1/16	4.87	1 1/2	1	30.00
488	36	17.19	4	2 1/16	4.50	1 3/4	1.64 to 1	27.50
487	22	10.50	4	2 1/16	2.75	1 1/8	1	17.00
627	50	23.87	4	3 1/16	6.25	4	2.00 to 1	40.00
626	25	11.94	4	2 1/16	3.13	1	1	19.30
96	64	30.56	4	3 15/16	8.00	4 3/4	2.29 to 1	54.00
95	28	13.37	4	2 1/16	3.50	1 1/16	1	21.50
98	50	23.87	4	3 1/16	6.25	3 3/8	2.50 to 1	40.00
97	20	9.55	4	2 1/16	2.50	1	1	15.50
100	55	26.26	4	3 1/16	6.87	3 1/2	2.50 to 1	45.00
99	19	9.07	4	2 1/16	2.37	1	1	14.80
452	45	21.49	4	3 1/16	5.63	2 1/4	3.00 to 1	35.30
451	15	7.16	4	1 15/16	1.87	2 1/8	1	11.80
629	51	24.35	3 1/2	3 1/16	6.37	2 1/2	3.00 to 1	39.40
628	17	8.12	3 1/2	2 1/16	2.13	1 1/2	1	12.70
4002	63	30.08	4	3 15/16	7.87	4 1/4	3.00 to 1	53.00
4001	21	10.03	4	2 1/16	2.63	1	1	16.30
498	75	35.81	4	3 15/16	9.38	5	3.00 to 1	69.50
497	25	11.94	4	2 1/16	3.13	1	1	19.30
635	50	23.87	4	3 1/16	6.25	4	3.12 to 1	40.00
634	16	7.64	4	2 1/16	2.00	3/4	1	12.50
50	60	28.65	4	3 15/16	7.50	4 1/2	3.33 to 1	50.00
49	18	8.59	4	2 1/16	2.25	1	1	14.00



## ATTACHMENT LINKS

### For Malleable Link Belting

### STANDARD STOCK SIZES



#### LIST PRICES PER FOOT

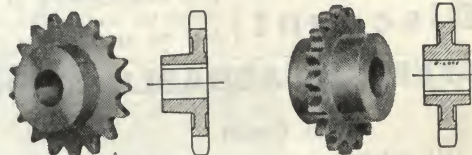
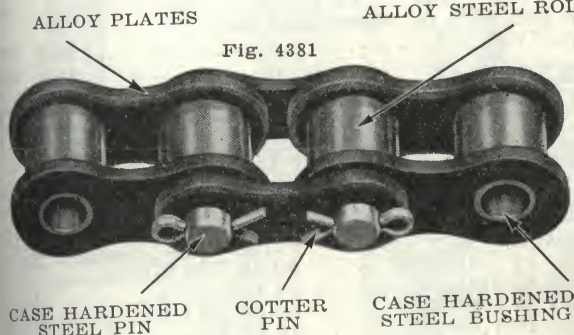
Type	A1	C1	H2	K1	S1	E1	F2
No. 25	\$0.36	\$0.39	\$0.42	\$0.40	.....	.....	.....
No. 32	.36	.39	.....	.43	.....	.....	.....
No. 33	.....	.....	.....	.37	\$0.40	.....	.....
No. 34	.....	.....	.....	.41	.....	.....	.....
No. 42	.35	.44	.....	.42	.43	.....	.....
No. 45	.35	.37	.....	.39	.40	\$0.31	\$0.46
No. 52	.42	.....	.....	.50	.....	.....	.59
No. 55	.37	.38	.....	.42	.45	.35	.52
No. 57	.41	.....	.....	.51	.....	.....	.63
No. 62	.48	.50	.....	.54	.....	.....	.65
No. 67	.51	.....	.....	.58	.....	.....	.70
No. 75	.....	.....	.....	.57	.....	.....	.78
No. 77	.56	.....	.....	.66	.....	.....	.84
No. 78	.....	.....	.....	.66	.....	.....	.94
No. 88	.....	.....	1.02	.78	.....	.....	1.30
No. 103	.....	.....	1.30	1.12	.....	.....	.....
No. 114	.....	.....	.....	1.50	.....	.....	.....
No. 124	.....	.....	.....	1.90	.....	.....	.....
Type	K40	K91	K45½	S5	D5	H1	G1
No. 45	\$0.65	\$0.85	.....	.....	.....	.....	.....
No. 55	.....	.....	\$0.94	\$0.45	.....	.....	.....
No. 62	.80	.....	.....	.....	\$0.74	.....	.....
No. 75	.....	.....	.....	.....	.....	\$0.70	.....
No. 77	.....	.....	.....	.....	.....	.....	\$0.66
Type	M3	H1	K2	A11	F8	G6	
No. 78	\$1.20	\$0.58	.....	.....	.....	.....	.....
No. 85	.....	.....	\$1.02	.....	.....	.....	.....
No. 88	1.54	.68	.....	\$0.78	.....	.....	.....
No. 95	.....	.....	1.12	.....	.....	.....	.....
No. 103	.....	.....	1.16	.....	\$1.52	\$1.40	.....
No. 108	.....	.....	1.16	.....	.....	.....	.....
No. 114	.....	.....	.....	.....	1.90	.....	.....
No. 124	.....	.....	.....	.....	2.36	.....	.....

Discount { Sizes up to and incl. No. 77... 20% OFF  
 No. 78 and larger sizes..... 10% OFF

SPECIAL SIZE LINKS ARE MADE TO ORDER. PRICES ON APPLICATION.

## REX ROLLER CHAIN

### REX CUT TOOTH SPROCKETS



Style B  
With a hub on one side only.

Style C  
With hubs on both sides.

Sprockets of less than about 8 inch diameter are made of steel blanks or castings. Larger sprockets are made of cast iron or cast steel. Other styles can also be furnished.

#### PRICES ON APPLICATION

Exceptionally durable. Velvety smooth in operation. Unusually quiet at high speed. Attractive appearance. Uniformly high in quality. Rated 98% efficient. For drives where speed of chain is relatively high or where it is necessary to transmit a considerable amount of power through a small and compact unit. More flexible than the gear type drive. Smooth rolling action. No slip. Practically unaffected by atmospheric conditions. Interchangeable with other standard chains. Uniform. All parts, pins, bushings, side plates and rollers are of high grade alloy steels. Can be run in either direction, may engage sprockets on either side. Delivers positive speed ratios on either short or long centers.

**SPECIFY:** Chain number. Style. Pitch, (distance from center to center of rivets). Width of roller, (distance between two inside plates). Diameter. Length of chain.

Chain No.	Pitch Inch	Roller Width Inches	Roller Diameter Inches	Average Maximum Strength Pounds	Maximum Sprocket R. P. M.	LIST FOOT With Cotter	LIST FOOT Riveted	Extra Connect-Link, Each	Extra Roller Link, Each	Extra Offset Link, Each
35#	3/8	3/8	0.200	2,000	3,600	.....	\$0.60	\$0.08	\$0.08	\$0.18
40	1/2	1/2	3/16	3,600	2,260	.....	.90	.08	.08	.22
50	5/8	5/8	0.400	5,800	1,720	.....	.80	.08	.10	.22
60	3/4	3/4	15/32	6,000	1,380	\$1.00	.90	.10	.10	.32
80	1	1	7/8	12,500	950	1.70	1.60	.16	.20	.52
100	1 1/4	1 1/4	1	21,000	700	2.00	2.00	.22	.30	.68
120	1 1/2	1 1/2	1 1/8	30,500	540	2.60	2.60	.34	.50	.80
140	1 3/4	1 3/4	1 1/4	41,000	430	3.00	3.00	.48	.60	.90
160	2	2	1 1/2	53,000	350	3.60	3.60	.60	.90	1.00
200	2 1/2	2 1/2	1 3/4	90,000	250	7.70	7.70	1.80	2.30	3.20

†Made only without roller; width and diameter given are for bushing.

10% OFF

DISCOUNT



## STANDARD DETACHABLE LINK BELTING — Malleable

Made from high grade metal, accurately proportioned. Carefully finished and inspected to insure accurate size and perfect links. Standard pitch, interchangeable with all other standard makes, and re-inforced at notch.

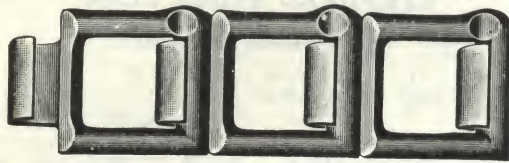


Fig. No. 2455

For transmission, light elevator and conveying work, where the chain is not subjected to much of a twisting action, sizes up to No. 83 are recommended. Sizes No. 83 and higher are known as engineering sizes and are largely used for elevators and conveyors. Their design renders them unsuitable, generally speaking, for transmission purposes.

In transmission work, the chain of the same pitch as the sprocket wheels is generally used. To insure satisfactory operation, care must be taken to select chain of adequate strength. The table below gives the average ultimate strength in pounds and also the maximum speed at which the chain can be safely operated.

### STANDARD STOCK SIZES—MALLEABLE

#### LIST PRICES PER FOOT

No.	Links, List Per Foot	Couplers, List Per Pair	Approx. Links in 10 Feet	Average Ultimate Strength Pounds	Average Pitch of Std. Chain, Inches	Max. Speed, Feet Per Minute
25	\$0.17	\$0.17	133	700	.902	600
32	.17	.17	104	1,100	1.154	600
33	.16	.16	86	1,190	1.394	600
34	.18	.18	86	1,300	1.398	600
42	.19	.19	88	1,500	1.375	600
45	.18	.18	74	1,600	1.630	500
50	.22	.22	87	1,900	1.380	600
51	.24	.24	104	1,900	1.155	600
52	.23	.23	80	2,300	1.506	500
55	.20	.20	74	2,200	1.631	500
57	.26	.26	52	2,800	2.308	480
62	.27	.27	73	3,100	1.654	500
67	.30	.30	52	3,300	2.308	480

#### LIST PRICES PER FOOT

No.	Links, List Per Foot	Couplers, List Per Pair	Approx. Links in 10 Feet	Average Ultimate Strength Pounds	Average Pitch of Std. Chain, Inches	Max. Speed, Feet Per Minute
75	\$0.33	\$0.33	46	4,000	2.609	450
77	.35	.35	53	3,600	2.297	480
78	.44	.44	46	4,900	2.609	450
85	.62	.62	30	7,600	4.000	400
88	.50	.50	46	5,750	2.609	450
95	.68	.68	31	8,700	3.967	400
103	.73	.73	39	9,600	3.075	400
108	.80	.80	26	9,900	4.720	300
114	.92	.92	37	11,000	3.250	400
124	1.08	1.08	30	15,000	4.063	300

For attachments at intervals add 10% to proportional list.

<b>Discount</b>	Sizes up to and including No. 77.....	25% OFF
	No. 78 and larger sizes.....	15% OFF

## STEEL DETACHABLE SPROCKET CHAIN AND ATTACHMENT LINKS

Fig. 5162  
Steel Chain

All chains run on standard wheels. Chains not listed and special chains of standard pitch to meet all conditions can be furnished, prices on request.

No.	Links To 10 Feet	LIST EACH
25	133	\$0.17
32	104	\$0.17
42	88	\$0.19
45	74	\$0.18
52	80	\$0.23
55	74	\$0.20
62	73	\$0.27
67	52	\$0.30
77	52	\$0.35

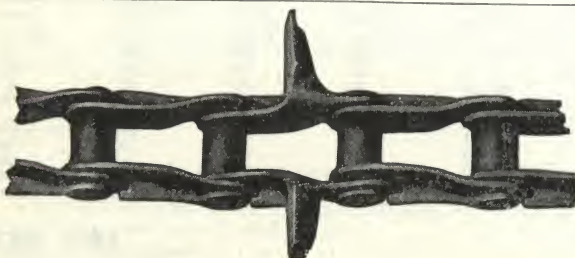
DISCOUNT .....25% OFF

Fig. 5163  
Steel Attachment Links

For tempered steel detachable sprocket chain. This list shows only a few attachments most commonly used, we can furnish attachments of every description.

Size No.	LIST EACH	Size No.	LIST EACH	Size No.	LIST EACH
25-A-3	\$0.46	45-G-27	\$0.56	55-S-D	\$0.45
25-K-1	\$0.40	45-K-1	\$0.39	62-A-1	\$0.48
32-A-1	\$0.36	45-K-5	\$0.50	62-A-2	\$0.70
32-C-1	\$0.39	45-S-D	\$0.40	62-A-3	\$0.74
32-K-1	\$0.43	52-A-1	\$0.42	62-C-1	\$0.50
32-K-5	\$0.50	52-K-1	\$0.50	62-K-5 (62-W)	\$0.68
42-A-1	\$0.35	55-A-1	\$0.37	67-A-S	\$0.67
42-K-1	\$0.42	55-A-2	\$0.58	67-G-15	\$0.61
45-A-1	\$0.35	55-C-1	\$0.57	77-A-S	\$0.72
45-A-2	\$0.52	55-G-27	\$0.62	77-G-15	\$0.66
45-A-37	\$0.56	55-K-1	\$0.42	77-K-1	\$0.66
45-C-1	\$0.37	55-K-5	\$0.62		

DISCOUNT .....15% OFF



### "WESTERN" CONVEYOR FEEDER CHAIN

SM477 Feeder Chain, with Special F-16 Attachment Link. Best quality refined malleable iron, correctly pitched, extra heavy and works on No. 77 sprockets. All plain links.

F-16 special attachment every 7th link for corn.

F-16 attachment every 4th link for small grain.

F-16 special attachment links.

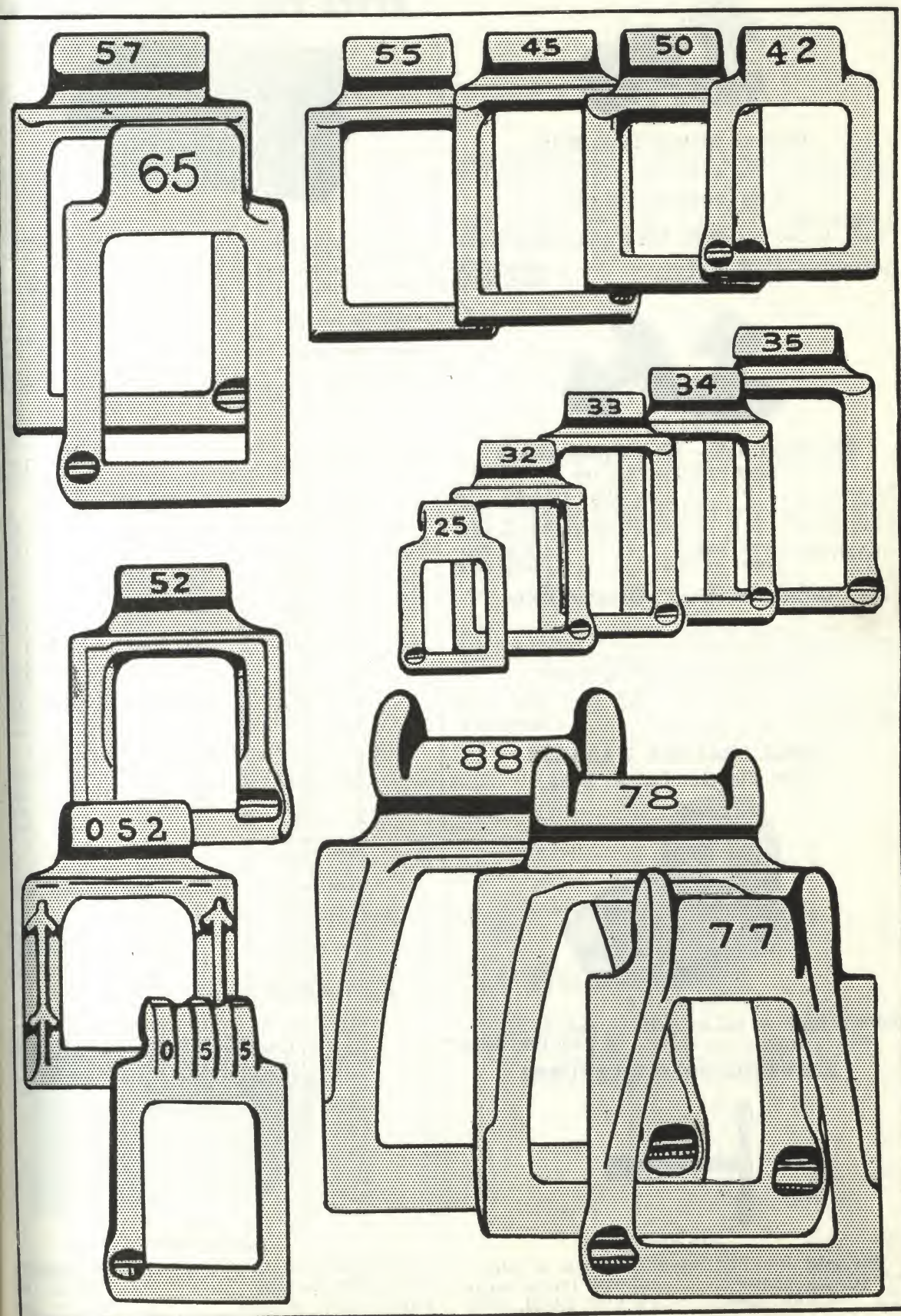
Plain pins.

Coupling pins.

Prices on Application



# FULL SIZE LINK BELT





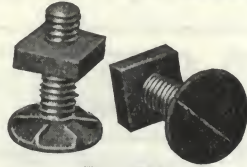
**ELEVATOR BUCKET BOLTS**

Fig. 673

**Reliance Slotted Head Bolts**

Have screw-driver slot in head, and corrugated under surface. Not suitable for buckets larger than 8 x 5.

**LIST PRICES PER 100**

Length, Ins.	3/4	7/8	1	1 1/4	1 1/2
Diam. 1/4 in.....	\$3.30	\$3.45	\$3.45	\$3.60	\$3.75

<b>DISCOUNT</b>	{ 1 to 1000.....	50% OFF
	{ 1000 or More.....	55% OFF



Fig. 674

**Flat Head Bolts—With Square Shank****LIST PRICES PER 100**

Length, Ins.	3/4	7/8	1	1-1/4	1-1/2	1-3/4	2
Diam. 1/4 in....	\$3.30	\$3.45	\$3.45	\$3.60	\$3.75	\$3.90	\$4.05
Diam. 5/16 in....	\$4.50	\$4.75	\$4.75	\$5.00	\$5.25	\$5.50	\$5.75
Diam. 3/8 in....	\$6.00	\$6.40	\$6.40	\$6.80	\$7.20	\$7.60	\$8.00

<b>DISCOUNT</b>	{ 1 to 1000.....	45% OFF
	{ 1000 or More.....	50% OFF

**'Large Flat Head' Elevator Bolts**

Fig. 5211

For use especially where the load is heavy. They avoid premature belt wear because the bucket and load weight is distributed over a larger area of the belt.

**LIST 100 — 1-1/4 INCH HEAD**

Length, Ins.	3/4	1	1-1/4	1-1/2	1-3/4	2
1/4 In. Diam....	\$7.60	\$7.90	\$8.20	\$8.50	\$8.80	\$9.10

<b>DISCOUNT</b>	.....	45% OFF
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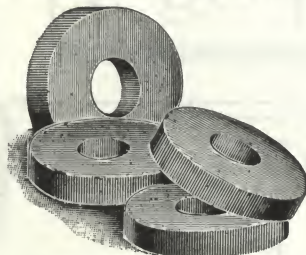
**HARD LEATHER WASHERS****For Elevator Bucket Bolts**

Fig. No. 677

Outside diam. 3/4 in., for bolts 3/16 and 1/4 in.  
diam. ....★ **NET 100, \$0.25**

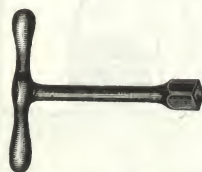
**ELEVATOR BOLT WRENCHES**

Fig. 2457

Malleable iron, for fastening buckets to belts.  
'T' Handle Wrench.....★ **NET EACH, \$0.40**  
For Use with Brace.....★ **NET EACH, \$0.60**

**'ONE-PIECE'  
STEEL ELEVATOR BUCKETS**

Fig. 5210

A strong, rugged, one-piece bucket, perfectly smooth inside and out, with all bands that have interference with the pickup and discharge eliminated. Made of heavy gauge steel which insures increased strength and wearing qualities. The weight of the one-piece bucket is less than other types with bands and the wear on the belt is less. The sizes listed are **standard gauge black steel**. Sizes 16 inches or larger are furnished with a center brace. Capacities given are measured full. Prices on request for GALVANIZING or HEAVIER GAUGES.

Lgth. Ins.	Bucket Projection	LIST of EACH Body	Gauge of End	Gauge of Ins.	Capacity Cubic	C. to C. Center Holes	C. to C. Holes Ins.
<b>WITH TWO 5/16 INCH PUNCHED HOLES</b>							
2	2	\$0.17	20	20	5.20	....	7 1/2
2-1/2	2-1/2	\$0.21	20	20	10.15	....	1-1/2
3	3	\$0.27	18	18	17.55	....	1-3/4
3-1/2	3	\$0.30	18	18	20.47	....	2-1/4
4	3	\$0.32	18	18	23.40	....	2-1/2
4-1/2	3	\$0.34	18	18	26.32	....	3-1/4
4-1/2	3-1/2	\$0.37	18	18	35.82	....	3-1/4
5	3-1/2	\$0.38	18	18	39.80	....	3-1/2
5	4	\$0.39	16	16	52.00	....	3-1/2
5-1/2	4	\$0.41	16	16	57.2	....	4
5-1/2	4-1/2	\$0.47	16	16	72.3	....	4
6	4	\$0.42	16	16	62.4	....	4-1/2
6	5	\$0.60	16	16	97.0	....	4-1/2
6	5-1/2	\$0.74	16	16	118.	....	4-1/2
7	4-1/2	\$0.54	16	16	92.	....	5-1/4
7	5	\$0.65	16	16	114.	....	5-1/4
7	5-1/2	\$0.77	16	14	137.	....	5-1/4

<b>WITH THREE 5/16 INCH PUNCHED HOLES</b>							
8	5	\$0.70	16	16	130.	....	3-1/8
8	5-1/2	\$0.80	16	14	157.	....	3-1/8
8	6	\$0.82	16	14	187.	....	3-1/8
9	5	\$0.75	16	16	146.	....	3-1/2
9	6	\$0.85	16	14	211.	....	3-1/2
10	5	\$0.82	16	14	162.	....	4
10	5-1/2	\$0.87	16	14	196.	....	4
10	6	\$0.90	16	14	234.	....	4

<b>WITH FOUR 5/15 INCH PUNCHED HOLES</b>							
11	5	\$0.85	16	14	179.	....	3-1/8
11	6	\$0.96	16	14	257.	....	3-1/8
12	5	\$0.91	16	14	195.	....	3-3/8
12	5-1/2	\$0.98	16	14	236.	....	3-3/8
12	6	\$1.02	16	14	281.	....	3-3/8
12	7	\$1.42	14	14	382.	....	3-3/8
14	6	\$1.14	14	14	328.	....	4
14	7	\$1.62	14	14	446.	....	4

<b>WITH SIX 5/16 INCH PUNCHED HOLES</b>							
16	6	\$1.28	14	14	376.	3-1/4	2-5/8
16	6-1/2	\$1.40	14	14	442.	3-1/4	2-5/8
16	7	\$1.84	14	14	509.	3-1/4	2-5/8
16	7-1/2	\$1.90	14	14	595.	3-1/4	2-5/8
16	8	\$1.94	14	14	665.	3-1/4	2-5/8
18	6-1/2	\$1.62	14	14	498.	4	3
18	7	\$2.00	14	14	573.	4	3
18	7-1/2	\$2.04	14	14	668.	4	3
18	8	\$2.06	14	14	749.	4	3
20	6-1/2	\$1.75	14	14	555.	4	3-1/2
20	7	\$2.10	14	14	637.	4	3-1/2
20	7-1/2	\$2.16	14	14	741.	4	3-1/2
20	8	\$2.20	14	14	832.	4	3-1/2
22	7	\$2.18	14	14	700.	4	4
22	8	\$2.36	14	14	915.	4	4

**DISCOUNTS**

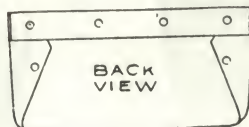
1 to 99 Buckets.....	32% OFF
100 to 999 Buckets.....	36% OFF
1000 or More Buckets.....	36-10% OFF



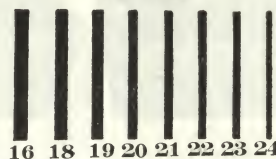
## SALEM STEEL ELEVATOR BUCKETS



Fig. No. 659



## GAUGES



Superior in quality and workmanship. Formed from one piece of steel securely riveted or spot welded at the back, with the ends lapped over the main body by forming dies, a construction which produces a smooth, tight, durable joint.

All Salem Buckets made from standard gauges of steel (as well as those of 16 gauge), where the projection is 5 1/2 inches and over, are reinforced by a back band through which the bolt holes are punched. The bands are electric spot welded.

## REVISED SPECIFICATIONS AND LIST PRICES PER BUCKET—JULY 1, 1922

BUCKET SIZE, INCHES		Capacity, Cubic Inches	STANDARD WTS., For Ordinary Work		MEDIUM WEIGHT GAUGE NOS. For Ear Corn, Cobs, Etc.			HEAVY WEIGHTS For Ore, Coal, Stone, Etc.			
Width	Projection		Gauge No.	List Each	18 Ga., List each	16 Ga., List each	14 Ga., List each	12 Ga., List each	10 Ga., List each	8 Ga., List each	5/16 In., List each
2 1/2	2 1/2	9	24	\$0.15	\$0.25	.....	.....	.....	.....	.....	.....
3	2 1/2	10	24	.15	.25	.....	.....	.....	.....	.....	.....
3 1/2	2 1/2	12	24	.15	.25	.....	.....	.....	.....	.....	.....
3	3	15	22	.15	.25	\$0.35	.....	.....	.....	.....	.....
3 1/2	3	18	22	.15	.25	.35	.....	.....	.....	.....	.....
4	3	20	22	.15	.25	.35	.....	.....	.....	.....	.....
4 1/2	3	22	22	.15	.25	.35	.....	.....	.....	.....	.....
4	3 1/2	27	22	.15	.25	.35	\$0.42	.....	.....	.....	.....
4 1/2	3 1/2	30	22	.15	.25	.35	.42	.....	.....	.....	.....
5	3 1/2	32	22	.17	.27	.38	.45	.....	.....	.....	.....
5	4	45	20	.19	.30	.42	.50	\$0.73	.....	.....	.....
5 1/2	4	49	20	.22	.33	.46	.54	.80	.....	.....	.....
6	4	54	20	.25	.37	.50	.59	.88	.....	.....	.....
7	4 1/2	73	20	.30	.43	.56	.65	.97	\$1.15	.....	.....
7 1/2	5	102	19	.35	.....	.60	.70	1.05	1.25	\$1.45	\$1.65
8	5	116	19	.40	.....	.65	.77	1.12	1.35	1.57	1.78
9	5	130	19	.45	.....	.70	.84	1.19	1.45	1.69	1.91
10	5 1/2	175	19	.48	.....	.73	.87	1.27	1.51	1.75	1.96
10 1/2	6	187	18	.56	.....	.77	.95	1.40	1.69	1.97	2.19
11	6	206	18	.62	.....	.88	1.08	1.58	1.90	2.20	2.43
12	6	225	18	.69	.....	.92	1.14	1.69	2.05	2.37	2.61
14	6	263	18	.83	.....	1.06	1.30	1.90	2.30	2.65	2.90
16	6	301	18	.97	.....	1.22	1.48	2.05	2.45	2.80	3.06
18	6	339	18	1.11	.....	1.41	1.69	2.30	2.72	3.09	3.37
20	6	377	18	1.25	.....	1.60	1.90	2.50	2.94	3.34	3.64
10	7	261	18	.70	.....	.92	1.17	1.70	2.10	2.45	2.70
11	7	289	18	.77	.....	1.01	1.28	1.85	2.25	2.60	2.85
12	7	317	18	.85	.....	1.11	1.40	2.00	2.40	2.75	3.00
14	7	373	18	1.00	.....	1.28	1.60	2.20	2.65	3.00	3.25
16	7	429	18	1.15	.....	1.45	1.80	2.40	2.90	3.25	3.50
18	7	475	18	1.30	.....	1.62	2.00	2.65	3.10	3.50	3.75
20	7	531	18	1.45	.....	1.80	2.20	2.90	3.40	3.80	4.25
18	8	506	18	1.35	.....	1.65	2.05	2.70	3.15	3.55	4.00
18	8	574	18	1.50	.....	1.80	2.20	2.85	3.30	3.75	4.25
20	8	641	18	1.66	.....	2.00	2.40	3.05	3.50	4.00	4.55
22	8	709	18	1.83	.....	2.20	2.65	3.30	3.75	4.30	4.90

Sizes in bold face type usually carried in stock. Odd sizes, shown in light face; Extra net charge for setting up special size buckets Net Extra \$2.00

DISCOUNT	1 to 49	50 to 99	100 to 199	200 to 499	30-5% OFF	30-7 1/2% OFF

## STEEL GRAIN AND EAR CORN BUCKETS



Designed to assure maximum capacity and clean discharge. Use for high capacity at slow belt speed. Well proportioned, light, strong and durable. Heavy steel band is securely riveted around the top. 5/16 inch punched holes.

Bucket Length Inches	Projection, Inches	LIST EACH	Capacity, Cubic Inches	Number, Punched Holes	C. to C. of Holes, Inch
Fig. 3498—Grain Sizes—26 Gauge					
5	4	\$0.33	46	2	3-1/16
5-1/2	4	\$0.35	50	2	3-3/4
6	4	\$0.36	55	2	4-1/4
7	4-1/2	\$0.45	86	2	5
8	5	\$0.50	120	3	3
9	5	\$0.53	135	3	3-1/2
10	5-1/2	\$0.68	178	3	3-15/16
11	6	\$0.77	238	4	3
12	6	\$0.80	260	4	3-5/16
14	6	\$0.86	303	4	3-15/16
Fig. 662—Ear Corn Sizes—24 Gauge					
11	7	\$1.13	348	4	3
12	7	\$1.17	380	4	3-5/16
13	7	\$1.23	411	4	3-9/16
14	7	\$1.25	443	4	3-15/16
15	7	\$1.28	475	5	3-1/4
16	7	\$1.33	506	5	3-3/8
18	7	\$1.44	570	6	3-3/16
19	7	\$1.46	601	6	3-13/16

DISCOUNT	1 to 49	50 to 99	100 to 199	200 or More	20-5% OFF	20-5-2 1/2% OFF	20-5-5% OFF	20-7 1/2-5% OFF

Special Size Buckets Quoted Upon Application



# MALLEABLE ELEVATOR BUCKETS



Style A, Fig. No. 668.  
The A bucket is the standard form and the most generally used.

**Note:** Special Malleable Buckets made to order.



Style AA, Fig. No. 670  
AA has heavy reinforced front edges and corners, which increase the life of the bucket in handling material of a siliceous nature.



Style B, Fig. No. 669.

The shape of the B bucket is favorable for use in inclined elevators and handling coarsely broken materials.



Style C, Fig. No. 671.

The C is designed for handling clay, sugar, finely pulverized ores, and such materials as would stick or pack in the other types of buckets.

Cast in one piece and carefully annealed. Round corners and bottoms. State whether they are to be punched for flat belt or chain belt and if for chain belt give number of chain belt and style of attachment that will be used. Furnished unpunched unless punching specifications accompany order.

## LIST EACH BUCKET

Lgth. in In.	Width in Ins.	Depth in Inches	Approx. Capacity Cu. Ins.	Approx. Capacity in Qts.	List Each
<b>STYLE A — FIG. 668</b>					
4	2 3/4	3	16	.27	\$0.31
5	3 1/2	3 3/4	36	.62	.50
6	4	4 1/4	55	.95	.64
7	4 1/2	5	85	1.47	.76
8	5	5 1/2	115	1.99	.90
10	6	6 1/4	204	3.53	1.45
11	6	6 1/2	223	3.86	1.55
12	6	6 3/4	246	4.25	1.65
12	7	7 1/4	332	5.74	1.90
14	7	7 1/2	391	6.77	2.20
15	7	7 3/4	425	7.35	2.35
16	7	7 1/2	467	8.08	2.60
14	8	8 1/2	509	8.81	3.00
16	8	8 1/2	593	10.26	3.40
18	8	8 1/2	668	11.56	3.75
18	10	10 1/2	1053	18.23	5.85
STYLE A PUNCHED					40% OFF
STYLE A UNPUNCHED					40-5% OFF
<b>STYLE AA — FIG. 670</b>					
6	4	4 1/4	55	.95	\$0.70
8	5	5 1/2	115	1.99	1.00
10	6	6 1/4	204	3.53	1.50
11	6	6 1/2	223	3.86	1.65
12	6	6 3/4	246	4.25	1.80
12	7	7 1/4	332	5.74	2.10
14	7	7 1/2	391	6.77	2.45
15	7	7 3/4	425	7.35	2.60
16	7	7 1/2	467	8.08	2.85
STYLE AA PUNCHED					40% OFF
STYLE AA UNPUNCHED					40-5% OFF
<b>STYLE B — FIG. 669</b>					
4	1 1/2	2 1/4	6	.10	\$0.25
7	3 1/2	5	55	.95	.58
8	3 1/2	5	65	1.12	.65
10	4	5 1/2	107	1.85	1.10
12	5 1/2	7 1/2	233	4.03	1.65
16	6 1/2	9	412	7.13	2.60
STYLE B PUNCHED					30% OFF
STYLE B UNPUNCHED					30-5% OFF
<b>STYLE C — FIG. 671</b>					
8	4 1/2	4	50	.6	\$0.85
10	5	4	80	1.	1.20
12	5	4	100	1.25	1.35
16	7	5 1/2	250	3.1	2.40
STYLE C PUNCHED					30% OFF
STYLE C UNPUNCHED					30-5% OFF

# MINNEAPOLIS "V" TYPE 'SUPER CAPACITY' HIGH SPEED BUCKETS



Fig. 5209

The 'SUPER-CAPACITY' Minneapolis 'V' Elevator Buckets are designed for increased capacity. They hold a larger gross content than the 'ordinary' construction, the dimensions and shape being radically changed. They have an improved pickup and a perfect discharge and may be placed at closer centers on the belt and can be operated at high belt speeds.

By putting these buckets on the belt as close as possible, using the old head, legs, boots and belt and speeding up as indicated, the capacity of old style elevators may be increased from 50% to 100% at a very slight expense.

Buckets longer than 14 inches made with center brace. Furnished punched with 1/8 inch holes according to standard list, as shown unless otherwise specified.

## LIST EACH BUCKET

BUCKET SIZE, INCHES		STANDARD		PUNCHING FOR BELTS	
Length	Projection	List Each	Gauge, Steel	Capacity, Cubic Inches	No. of Holes
3	3	\$0.25	26	16	2
3-1/2	3	\$0.25	26	18	2
4	3	\$0.25	26	21	2
4-1/2	3	\$0.27	26	24	2
4-1/2	3-1/2	\$0.30	26	34	2
5	4	\$0.35	26	51	2
5-1/2	4	\$0.38	26	56	2
6	4	\$0.40	26	61	2
7	4-1/2	\$0.50	24	90	3
8	5	\$0.70	24	118	3
9	5	\$0.80	22	133	3
9	6	\$1.00	22	196	3
9	7	\$1.40	20	278	3
10	5-1/2	\$1.10	20	186	3
10	6	\$1.20	20	218	3
10	7	\$1.50	20	309	3
11	6	\$1.30	20	240	3
12	6	\$1.35	20	261	4
12	7	\$1.65	20	371	4
12	8	\$2.50	18	474	4
14	6	\$1.75	20	304	4
14	7	\$2.10	20	433	4
14	8	\$2.95	18	553	4
16	6	\$1.90	20	348	6
16	7	\$2.30	18	495	6
16	8	\$3.25	18	632	6
18	6	\$2.05	20	391	6
18	7	\$2.50	18	556	6
18	8	\$3.60	18	711	6
20	6	\$2.25	20	435	6
20	7	\$2.75	18	618	6
20	8	\$3.80	18	790	6

## DISCOUNTS

1 to 49 Buckets	50% OFF
50 to 99 Buckets	50-2 1/2% OFF
100 to 199 Buckets	50-5% OFF
200 or More Buckets	50-7 1/2% OFF



## SECTIONAL FLIGHT SPIRAL STEEL CONVEYOR

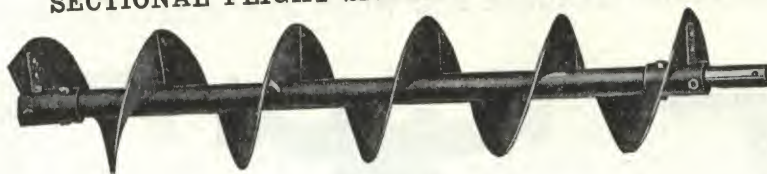


Fig. No. 681

	Diameter of Conveyor Inches	Thickness of Flights	Nominal Inside Diameter of Pipe Inches	Diameter of Coupling Inches	LIST EACH FOOT	Weight, Each Foot	Approximate Outside Diameter of Pipe Inches	Approximate Outside Diameter of External Collar Inches	Length of Standard Section o. Bearings, Feet Inches	Length of Hanger Bearing Inches	Maximum Torque Capacity Inch-Pounds
	4	18	1	1	\$ 1.70	2.5	1 1/8	1 5/8	8	1 1/2	940
	4	10	1	1	2.00	3.5	1 1/8	1 5/8	8	1 1/2	940
	4	3/8	1	1	2.20	4.0	1 1/8	1 5/8	8	1 1/2	940
	4	1/4	1	1	2.60	5.5	1 1/8	1 5/8	8	1 1/2	940
	6	16	1 1/2	1 1/2	2.00	4.5	1 7/8	2 3/8	10	2	3680
	6	10	1 1/2	1 1/2	2.30	5.5	1 7/8	2 3/8	10	2	3680
	6	3/8	1 1/2	1 1/2	2.60	6.5	1 7/8	2 3/8	10	2	3680
	6	1/4	1 1/2	1 1/2	3.00	8.0	1 7/8	2 3/8	10	2	3680
	6	3/8	1 1/2	1 1/2	3.50	9.0	1 7/8	2 3/8	10	2	3680
	9	14	1 1/2	1 1/2	2.30	5.5	1 7/8	2 3/8	10	2	3680
	9	10	1 1/2	1 1/2	2.60	7.0	1 7/8	2 3/8	10	2	3680
	9	3/8	1 1/2	1 1/2	2.80	8.5	1 7/8	2 3/8	10	2	3680
	9	1/4	1 1/2	1 1/2	3.20	10.0	1 7/8	2 3/8	10	2	3680
	9	14	2	2	2.60	6.5	2 3/8	2 7/8	10	2	7600
	9	10	2	2	2.90	8.0	2 3/8	2 7/8	10	2	7600
	9	3/8	2	2	3.10	9.5	2 3/8	2 7/8	10	2	7600
	9	1/4	2	2	3.50	11.0	2 3/8	2 7/8	10	2	7600
	9	3/8	2	2	4.00	14.0	2 3/8	2 7/8	10	2	7600
	12	12	2	2	2.70	8.5	2 3/8	2 7/8	12	2	7600
	12	3/8	2	2	3.20	11.0	2 3/8	2 7/8	12	2	7600
	12	1/4	2	2	3.60	15.0	2 3/8	2 7/8	12	2	7600
	12	12	2 1/2	2 7/8	3.20	10.5	2 7/8	3 1/2	12	3	9270
	12	1-7/8	2 1/2	2 7/8	3.70	13.0	2 7/8	3 1/2	12	3	9270
	12	2-5/16	3	3	3.70	12.5	3 1/2	4	12	3	16400
	12	2-3/4	3	3	4.00	15.0	3 1/2	4	12	3	16400
	12	3-1/8	3	3	4.20	17.0	3 1/2	4	12	3	16400
	12	3-3/8	3	3	4.70	19.5	3 1/2	4	12	3	16400
	12	3-5/8	3	3	5.00	22.0	3 1/2	4	12	3	16400
	12	4-1/8	3 1/2	3	8.00	27.0	4	.....	12	3	9270
	14	12	2 1/2	2 7/8	3.80	12.5	2 7/8	3 1/2	12	3	9270
	14	3-1/8	2 1/2	2 7/8	4.40	16.0	2 7/8	3 1/2	12	3	9270
	14	3-1/16	2 1/2	2 7/8	4.60	18.0	2 7/8	3 1/2	12	3	16400
	14	3-5/8	3	3	4.20	14.0	3 1/2	4	12	3	16400
	14	3-5/8	3	3	4.60	17.0	3 1/2	4	12	3	16400
	14	3-5/8	3	3	4.90	19.0	3 1/2	4	12	3	16400
	14	3-5/8	3	3	5.60	23.0	3 1/2	4	12	3	16400
	14	4-1/8	3	3	5.90	27.0	3 1/2	4	12	3	16400
	14	4-1/8	3	3	9.00	33.5	4	.....	12	3	16400
	14	4-1/8	3 1/2	3	4.70	16.0	3 1/2	4	12	3	16400
	16	10	3	3	5.20	18.0	3 1/2	4	12	3	16400
	16	3-3/8	3	3	5.50	22.0	3 1/2	4	12	3	16400
	16	3-3/8	3	3	6.20	25.5	3 1/2	4	12	3	16400
	16	3-3/8	3	3	6.50	29.0	3 1/2	4	12	3	16400
	16	3-3/8	3	3	10.00	36.0	4	.....	12	3	16400

40% OFF

## DISCOUNT

Two center

3

3

3

3

4-3/8

4-3/8

4-3/8

4-1/2

4-1/2

4-1/2

50-2 1/2 % OFF

50-5 % OFF

50-7 1/2 % OFF

The pitch of each size of conveyor is approximately equal to its diameter.

Sizes listed in bold face type are carried in stock in standard lengths, and have flights two gauges heavier than the intermediate flights.

In ordering, be sure to specify hand of conveyor, Right or Left.

List prices are for bare conveyor only, and do not include hangers, linings, couplings or coupling bolts.

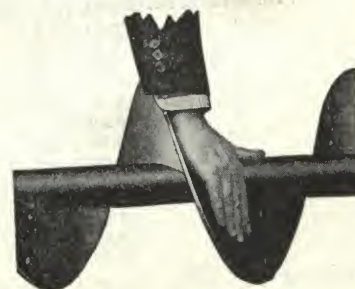
The price of a standard length of conveyor of a given diameter includes the width of one hanger space.

Prices shown are for standard lengths only. Prices on request for conveyors longer than standard or shorter than standard.

Sectional flight conveyor of special or exact diameter, special thickness or pitch of flight, or special pipe size, can be made to order. Prices on application.

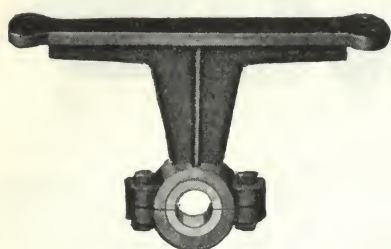
## AN EASY WAY TO DETERMINE THE HAND OF SPIRAL CONVEYORS

When the palm and fingers of the right hand can be laid upon the flights, and the thumb parallels the pipe, as shown above, the conveyor is RIGHT HAND. When the left hand can be applied, in the same position, it indicates a left hand conveyor. (Left hand not illustrated.)





## CONVEYOR HANGERS FOR WOOD AND STEEL TROUGHS



No. 13. Fig. 725.



Fig. 4234A



No. 12. Fig. 4234.

## LIST PRICES PER HANGER

Diam. of Conveyor Inches	Bearing Bore Inches	Bearing Length Inches	No. 13 Solid Eye List Each	Fig. 725 For Wood Bolted Cap List Each	Fig. 4234A No. 18 For Wood or Steel Trough List Each	Fig. 4234 No. 12 For Steel Trough Bolted Cap List Each
4	1	1½	\$2.20	.....	\$ 2.20	\$ 2.20
6	1½	2	2.70	\$3.00	2.70	2.70
9	1½	2	.....	3.00	3.00	3.00
9	2	2	.....	3.80	3.80	3.80
10	1½	2	.....	4.00	4.00	4.00
10	2	2	.....	4.50	4.50	4.50
12	2	2	.....	4.70	4.70	4.70
12	2½	3	.....	6.00	6.00	6.00
12	3	3	.....	7.00	7.00	7.00
14	2½	3	.....	7.00	7.00	7.00
14	3	3	.....	8.50	8.50	8.50
16	3	3	.....	9.00	9.00	9.00
18	3	3	.....	10.50	10.50	10.50

**DISCOUNT** ..... **37% OFF**

## CAST IRON BOX ENDS—INSIDE PATTERN—FOR SPIRAL CONVEYOR

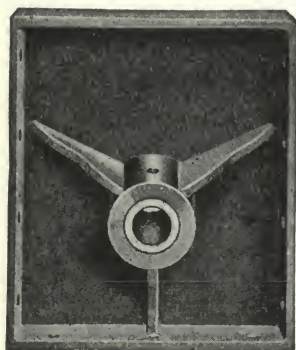


Fig. No. 728.



Fig. No. 728A.

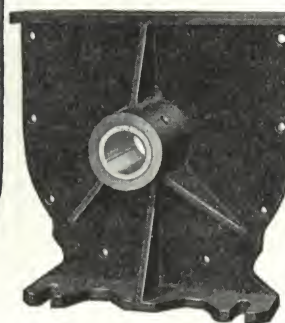


Fig. No. 3500.

## CAST IRON DISCHARGE END

Inside pattern, cast iron discharge box end. Permits discharge of material from end of box, and gives more rigidity to box than ordinary hanger.

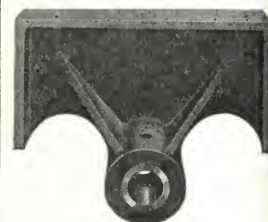


Fig. No. 729.

## FOR WOOD TROUGH

Conveyor Diam., In.	Drive End Diam., In.	List Each
4	1	\$ 3.00
6	1½	4.00
9	1½	5.50
9	2	6.50
10	1½	7.00
10	2	8.00
12	2	10.00
12	2½	11.00
12	3	12.00
14	2½	14.00
14	3	16.00
16	3	19.00
18	3	23.00

DISCOUNT, 37% OFF

## FOR STEEL TROUGH

Conveyor Diam., In.	Drive End Diam., In.	List Each
4	1	\$ 3.00
6	1½	4.00
9	1½	5.50
9	2	6.50
10	1½	7.00
10	2	8.00
12	2	10.00
12	2½	11.00
12	3	12.00
14	2½	14.00
14	3	16.00
16	3	19.00
18	3	23.00
20	3	28.00

DISCOUNT, 37% OFF

FOR STEEL TROUGH  
With Foot, Outside  
Pattern

Conveyor Diam., In.	Drive End Diam., In.	List Each
4	1	\$ 3.60
6	1½	4.80
9	1½	6.60
9	2	7.80
10	1½	8.40
10	2	9.60
12	2	12.00
12	2½	13.20
12	3	14.40
14	2½	16.80
14	3	19.20
16	3	22.80
18	3	27.60

DISCOUNT, 37% OFF

FOR WOOD OR STEEL  
TROUGH

Conveyor Diam., In.	Drive End Diam., In.	List Each
4	1	\$ 2.70
6	1½	3.60
9	1½	5.00
9	2	6.00
10	1½	6.50
10	2	7.00
12	2	9.00
12	2½	10.00
12	3	11.00
14	2½	12.50
14	3	14.50
16	3	17.00
18	3	21.00
20	3	25.00

DISCOUNT, 37% OFF



## STEEL CONVEYOR TROUGHS AND COVERS

Angle Type Trough with Malleable Iron Flange Connections. Covers not included unless ordered. Indicate style of cover fastening preferred; Bolted, Malleable Iron, or Spring Clamp. List prices do not include intake or discharge openings, box ends, etc. Sizes shown in Bold Face are standard. Standard lengths are 10 feet long.

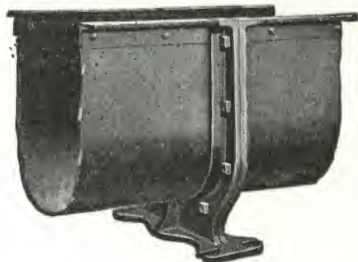


Fig. 3501

Conveyor Diameter Inches	Thick-ness Steel	TROUGH LIST FOOT		COVER LIST FOOT	
		Weight Pounds Each Foot	LIST FOOT	Weight Pounds Each Foot	LIST FOOT
4	<b>18</b>	<b>4.7</b>	<b>2.30</b>	<b>20</b>	<b>1.0</b>
4	16	5.3	2.35	18	1.3
4	14	6.0	2.50	16	1.6
4	12	7.6	2.80	16	1.6
4	10	9.1	3.30	16	1.6
6	<b>16</b>	<b>7.9</b>	<b>2.55</b>	<b>18</b>	<b>2.0</b>
6	14	8.9	2.90	16	2.5
6	12	11.0	3.25	14	3.3
6	10	13.0	3.75	14	3.3
6	$\frac{3}{4}$	16.1	4.35	14	3.3
9	16	11.2	3.35	18	2.5
9	<b>14</b>	<b>12.6</b>	<b>3.60</b>	<b>16</b>	<b>3.0</b>
9	12	15.5	4.10	14	3.9
9	10	18.4	4.65	14	3.9
9	$\frac{3}{4}$	22.8	5.60	14	3.9
9	$\frac{1}{4}$	28.5	6.35	14	3.9
12	14	17.6	4.50	16	4.2
12	<b>12</b>	<b>21.3</b>	<b>5.15</b>	<b>14</b>	<b>5.3</b>
12	10	25.0	5.65	14	5.3
12	$\frac{3}{4}$	30.6	6.65	14	5.3
12	$\frac{1}{4}$	38.1	7.95	14	5.3
14	14	20.2	5.45	16	4.5
14	<b>12</b>	<b>24.5</b>	<b>6.05</b>	<b>14</b>	<b>5.6</b>
14	10	28.9	6.60	14	5.6
14	$\frac{3}{4}$	35.4	7.65	14	5.6
14	$\frac{1}{4}$	44.1	8.95	14	5.6
16	14	22.7	6.50	16	5.3
16	<b>12</b>	<b>27.7</b>	<b>7.10</b>	<b>14</b>	<b>6.4</b>
16	10	32.7	7.75	14	6.4
16	$\frac{3}{4}$	40.1	8.85	14	6.4
16	$\frac{1}{4}$	50.1	10.15	14	6.4

## DISCOUNT

Less than 10 feet	20% OFF
11 to 30 feet	35% OFF
31 to 50 feet	35-5% OFF
51 to 100 feet	40-5% OFF
100 feet or over	45-5% OFF

## COUNTERSHAFT TROUGH END—CAST IRON MITRE GEARED

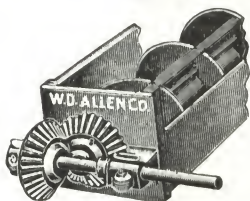


Fig. No. 730

For wood or steel troughs.

Speed of countershaft that of drive end is the same. Motion of conveyor can be reversed by changing position of driving mitre to engage opposite end of driven wheel. For use when lines of conveyor are to be run at right angles to the shaft from which the power is taken.—SPECIFY whether for wood or steel troughs.

Con-veyor Diam. Inches	Drive End Shaft Inches	Counter-Shaft Inches	Weight Pounds	LIST EACH
6	1½	1½	70	\$ 30.00
9	1½	1½	130	\$ 40.00
9	2	1½	140	\$ 50.00
9	1½	1½	140	\$ 50.00
10	2	1½	148	\$ 60.00
10	2	2	238	\$ 62.00
12	2½	2	248	\$ 74.00
12	2½	2½	300	\$ 82.00
12	2½	2½	359	\$104.00
14	3	2½	370	\$124.00
14	3	2½	535	\$136.00
16	3	2½		

DISCOUNT ..... 35% OFF

## CONVEYOR COUPLINGS, DRIVE AND END SHAFTS

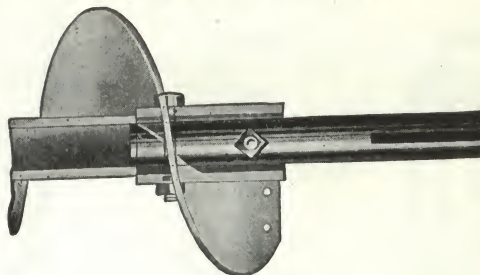


Fig. No. 682.

Made to fit into the collars or pipe shafts of the conveyor, and are held in place by bolts. The space between conveyor sections (a standard distance for each diameter of coupling), accomodates the hanger bearing. The projection of drive and end shafts is measured from end of pipe and not from outside of trough end bearing.

## STANDARD COUPLING OR END SHAFT

Diameter Inches	Weight Pounds	MAXIMUM Projection End Shaft	LIST EACH
1	1.5	4	\$0.40
1½	5.6	5	\$0.90
2	9.8	6	\$1.60
2½	15.4	7	\$2.30
3	23.8	7	\$3.50

## DRIVE END SHAFT

Diam. Inches	Standard Projection	LIST EACH	Special Projection			
			18	24	30	36
1	7	0.60	0.80	0.90	1.00	1.10
1½	9	1.20	1.50	1.70	1.90	2.10
2	10	2.20	2.70	3.10	3.50	3.90
2½	12	3.00	3.60	4.20	4.80	5.40
3	13	4.70	5.60	6.50	7.40	8.30

DISCOUNT ..... 35% OFF

## ROLLS FOR BELT CONVEYORS



Fig. 733. WOOD ROLL. Seasoned Maple.

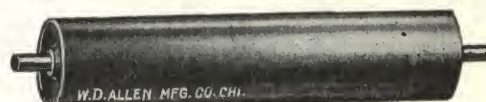


Fig. 734. STEEL ROLL. Ends Shrunk in.

Standard projections are: ¾ by 3 inch for 3 inch and 4 inch rolls; ¾ by 3½ inch for 5 inch and 6 inch rolls. Diameter of rolls are: 3, 4, 5 and 6 inch. Length of rolls are: 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 38 inches. Width of belt to be used should be 2 inches less than the length of the roll. SPECIFY: QUANTITY, DIAMETER, AND LENGTH.

PRICES ON REQUEST

## HORSE SHOE MAGNETS

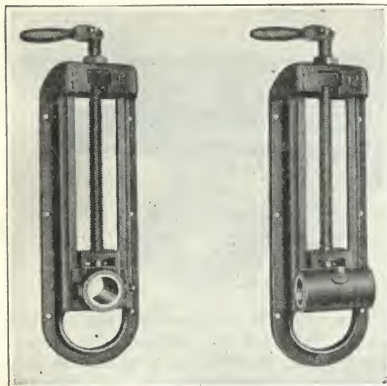


Fig. No. 750.

For removing wire and pieces of iron or steel of all kinds from grain before grinding. Magnets should be placed not more than one inch from side to side, and at least two gangs should be used. If the spout is very steep, three gangs will be needed. When not in use, the "keepers" should be placed on the magnets. 10 in. long. Weight from 2 to 2½ lbs.

★ NET EACH, \$1.05



STANDARD TAKE UP  
BOXES

Style "A" Fig. 719 Style "B" Fig. 720

For medium duty. Well proportioned cast iron frames. The solid bearings are adjusted by a threaded steel screw securely collared to the bearing, and work through a double thick nut pocketed in the frame. Babbitted bearings. Lever handles.

**SPECIFY:** Size of shaft, style, and adjustment.

Shaft Size Inches	Adjustment Inches	LIST EACH 'A' or 'B'
1 5/16 & 1	4	\$4.25
1 3/16 & 1 1/4	6	\$4.75
	9	\$5.00
	12	\$5.25
1 7/16 & 1 1/2	6	\$5.50
	9	\$5.75
	12	\$6.00
1 11/16 & 1 3/4	9	\$5.75
	12	\$6.10
	18	\$6.50
1 15/16 & 2	9	\$8.00
	12	\$8.75
	18	\$9.25
2 3/16	12	\$8.75
	18	\$9.50
	24	\$10.25
2 7/16	12	\$9.00
	18	\$9.75
	24	\$10.50
2 11/16	15	\$12.50
	24	\$13.50
2 15/16	15	\$13.50
	24	\$14.50

DISCOUNT ..... 10% OFF

## FLEXIBLE STEEL GRAIN SPOUTS AND HOPPER HEADS

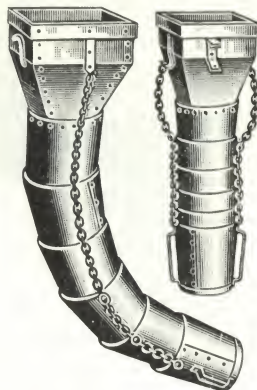


Fig. No. 686.

Improved design which allows for the easy removal of sections when necessary. Either round or square hopper heads furnished at additional price as shown. When ordering spouts with heads be sure to specify style of head.

To compute the list price of spout, complete with hopper head, add together the list price for the size spout required, and the list extra for the head to fit.

With Style "B" Hopper Head

## LIST PRICES PER SPOUT—(HOPPER HEADS EXTRA)

(For Prices of Hopper Heads, see List Extras Below)

Diam.	Length	18 Gauge	16 Gauge	14 Gauge	Diam.	Length	18 Gauge	16 Gauge	14 Gauge
6 in.	5 ft.	\$14.30	\$16.30	\$19.20	9 in.	5 ft.	\$18.90	\$21.80	\$25.80
6 in.	6 ft.	16.40	18.70	22.00	9 in.	6 ft.	19.40	25.00	29.60
6 in.	8 ft.	20.60	23.50	25.10	9 in.	8 ft.	27.10	31.50	37.20
6 in.	10 ft.	27.10	30.10	35.60	9 in.	10 ft.	34.90	40.60	48.20
6 in.	12 ft.	30.50	35.00	39.30	9 in.	12 ft.	38.00	46.90	55.80
7 in.	5 ft.	15.60	17.90	20.70	10 in.	5 ft.	20.60	23.80	28.40
7 in.	6 ft.	17.90	20.50	23.80	10 in.	6 ft.	23.60	27.30	32.60
7 in.	8 ft.	22.40	25.70	29.90	10 in.	8 ft.	29.60	34.30	41.00
7 in.	10 ft.	28.60	33.10	38.50	10 in.	10 ft.	38.60	46.80	53.20
7 in.	12 ft.	33.10	38.30	44.50	10 in.	12 ft.	44.30	51.30	61.60
8 in.	5 ft.	17.50	20.00	23.70	11 in.	5 ft.	22.80	26.40	31.60
8 in.	6 ft.	20.00	22.90	27.20	11 in.	6 ft.	26.20	30.30	36.30
8 in.	8 ft.	25.20	28.80	34.30	11 in.	8 ft.	32.90	38.10	45.70
8 in.	10 ft.	32.30	36.80	44.30	11 in.	10 ft.	42.50	49.30	59.30
8 in.	12 ft.	37.30	43.00	51.30	11 in.	12 ft.	49.20	57.10	68.70

## Round Hopper Heads "A"

## LIST EXTRA PER SECTION

Size Inches	Taper Inches	18 Gauge	16 Gauge	14 Gauge
6	6-7	\$2.70	\$3.10	\$3.70
7	7-8	3.00	3.50	4.20
8	8-9	3.50	4.00	4.80
9	9-10	3.80	4.35	5.20
10	10-11	4.20	4.70	5.70
11	11-12	4.60	5.30	6.40

## Square Hopper Heads "B"

## LIST EXTRA PER SECTION

Diam. of Spout Bottoms	Top Size Inches	18 Gauge	16 Gauge	14 Gauge
6	8x8	\$3.30	\$3.80	\$4.50
7	8x8	3.30	3.80	4.50
8	9x9	3.60	4.20	5.00
9	9x9	3.60	4.20	5.00
10	12x12	4.80	5.50	6.60
11	12x12	4.80	5.50	6.60

DISCOUNT (For Both Spouts and Hopper Heads) . . . 40% OFF

## CHAMPION FLOUR SCOOPS

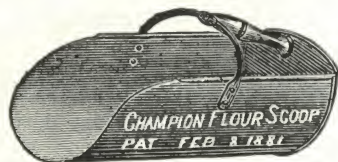


Fig. No. 680

Size, Inches

Sheet Steel, ★ NET EACH

Galvanized Steel, ★ NET EACH

8	\$0.98	\$1.22
10	\$1.10	\$1.44
12	\$1.28	\$1.58
14	\$1.62	\$1.94

## HERCULES STEEL SCOOPS



Fig. No. 678

Capacity 1 bushel . . . . .★ NET EACH, \$3.25  
Capacity 1/2 bushel . . . . .★ NET EACH, \$2.70



# BADGER NEVER SLIP CAR MOVER

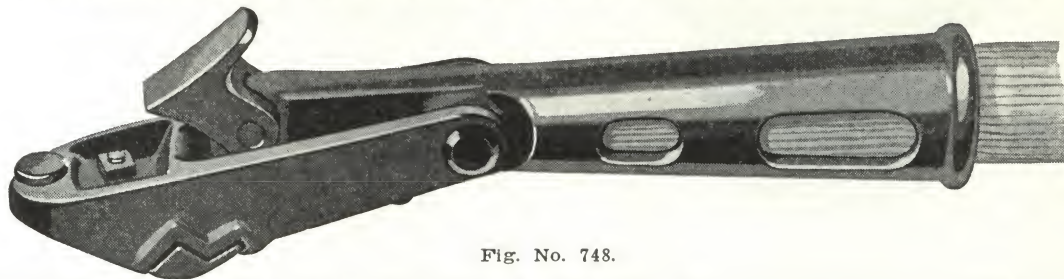


Fig. No. 748.

The feature of the Badger is the combination of powerful leverages, consisting of the "pinch bar" action and elongating toggle thrust. This quick-acting compound leverage provides PUSH enough to move the heavily loaded cars with ease, and it provides the speed to move and follow up empty cars at the rate of over three inches per stroke of handle. Never-Slip Spurs anchor the car-mover to the spot. While the car is being moved, there is no slipping back, no lost motion, but every bit of the forward thrust is utilized to force the car forward. The

Never-Slip Spur enables one man to handle any loaded car with ease and perfect safety. Both edges of the rail surface are engaged affording a double grip where the rail is softest, insuring a secure, safe fulcrum point that prevents the tool from slipping.

Guaranteed to move loaded or empty cars in a satisfactory manner. Castings are free from defects and breakages will be replaced for six months from date of shipment, replacements made free of charge, f. o. b. factory.

1 to 11  
**\$6.60**

★ NET EACH

12 to 23  
**\$6.40**

★ NET EACH

24 or More  
**\$6.20**

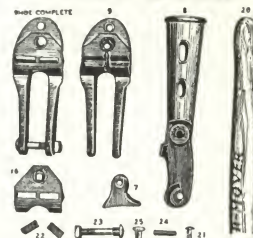
★ NET EACH

## REPAIR PARTS FOR BADGER CAR MOVER

	List Each
No. 7 Cam .....	\$1.00
No. 8 Socket .....	2.00
No. 9 Shoe Complete .....	3.00
No. 16 Spur Clamp .....	.50
No. 20 Handle, Select Maple .....	2.00
No. 21 Bolt for No. 16 Clamp .....	.10

	List Each
No. 22 Slip Proof Safety Spurs, set of two .....	\$0.50
No. 23 Bolt for No. 8 Socket .....	.20
No. 24 Rivet for No. 7 Cam .....	.10
No. 25 Hard Tool Steel Nose Point for No. 9 Shoe .....	.20

Price Repairs Only.....LIST NET



## RICHTAL CAR MOVER



Fig. 3982

Power with less speed for moving heavy cars and speed with less power for moving empty cars. Compound leverage. Two points come in contact with the car wheel at the proper rolling distance from the point where the wheel rests on the rail and the car wheel is immediately forced to turn and is not lifted from the track. Any parts found defective in ordinary use within six months from date of purchase will be replaced free of charge.

1 to 11. ★ NET EACH, \$5.90 | 12 to 23... ★ NET EACH, \$5.40  
24 or More ..... ★ NET EACH, \$4.90

## SWINGING BELT TIGHT-ENER



Fig. 707

Size of pulley	Diam. of Shaft, In.	Radius, In.	List Each
2x 8	1 1/16	36	\$30.00
2x 10	1 1/16	36	35.00
4x 14	1 1/16	48	40.00
4x 16	1 15/16	48	45.00
8x 20	2 1/16	60	50.00
8x 26	2 15/16	60	55.00

PRICE.....LIST PLUS 10%

## CLIMAX-SCOOP-TRUCK



Fig. 3503

Capacity:

200 Pounds  
of Coal, or

2 1/2 Bushels  
of Grain

Designed to increase from six to ten-fold, the efficiency of a man in unloading coal, grain or similar bulk freight from the ends of box cars to wagons, bin or hopper, and in moving such material wherever it can discharge its load at the floor level or from an inclined run-board rising two or three feet from the floor level. The scoop bowl is drawn-pressed from a single sheet of steel and has a corrugation in the middle which forms a housing for the wheels, a seat for the handles and a stiffener to the bottom of the bowl. Capacity 200 pounds of coal or 2 1/2 bushels of grain carrying little weight upon the arms or shoulders. Weight, 69 pounds.

★ NET EACH, \$18.00



## DOUBLE BOTTOM STEEL BASKET



Fig. 3502

$\frac{5}{8}$  inch sisal rope handles, lugs prevent twisting and crawling.  $\frac{5}{16}$  inch steel rod rolled in the rim makes the basket extremely strong. Made of fine grade open hearth steel. Galvanized by special process.

\*  $\frac{1}{2}$  bushel size has wire bail and dump handle.

Mfrs. No.	Capacity, Bushels	Weight, Lbs.	Oz.	★ NET EACH 1 to 3	4 or More
*50	$\frac{1}{2}$	4	9	\$1.05	\$0.90
100	1	6	12	\$1.15	\$1.00
150	$1\frac{1}{2}$	7	13	\$1.40	\$1.20
200	2	9	12	\$1.65	\$1.40

## ADJUSTABLE BAG HOLDERS

ADAPTED TO ALL KINDS AND SIZES OF BAGS

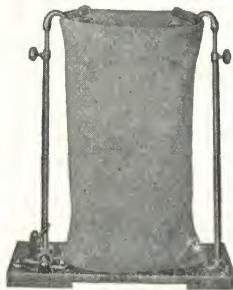


Fig. 747 Moshier

Fig. 747. Moshier. Equipped with malleable iron jaws, wrought iron pipe standards, and steel springs. The jaws are round and are provided with teeth that hold the bag open in an oval position. Adjustable to any height or width of sack. Will not slip off while the bag is being filled. Weight, 20 pounds.

★ NET EACH, \$5.25



Fig. 4069 Universal

Fig. 4069. Universal. Provided with malleable iron jaws. Practically unbreakable as it is constructed mainly of soft steel. Simple to use and sacks cannot fall off while being filled. Quickly adjusted to any height or width of sack. Released by a simple movement of the spring controlling the arm. A bar at the front of the frame holds a shovel or a basket when it is desired to sort or grade at the time bag is filled. Weight, 20 pounds.

★ NET EACH, \$5.75

## GRAIN SAMPLERS



Fig. No. 751

Our samplers are made of brass tubing; one tube revolves inside the other. They do not stick and are not affected by dampness.

## ★ NET PRICES EACH

No.	Openings	Diameter, Inches	Length, Inches	★ NET EACH
10	6	$1\frac{3}{8}$	38	\$ 7.50
11	7	$1\frac{3}{8}$	44	\$ 8.35
12	8	$1\frac{3}{8}$	50	\$ 8.90
13	9	$1\frac{3}{8}$	56	\$ 9.45
15	10	$1\frac{3}{8}$	62	\$10.00

## U. S. STANDARD BRASS GRAIN TESTER



Fig. No. 679

This tester is constructed so that when the cup is empty the beam balances with the poise set at zero. There are upon the beam three rows of marks, which indicate: (1) The number of pounds a sample will weigh to the bushel. (2) The exact weight of sample. (3) The per cent. of loss after cleaning.

## LIST PRICES EACH

No.	Capacity	List Each
1764B	$\frac{1}{2}$ pint	\$15.00
1763B	1 pint	18.00
1765B	1 quart	20.00
1767B	2 quarts	22.00

DISCOUNT ..... LIST NET

## ONE MAN LIFT

Economical and necessary for every well appointed grain elevator. Insures better attention and care of machinery. Reduces fire risk. Saves time. Eliminates tiresome climbing. Ready at all times. The One Man Lift is provided with double safety clutches to prevent falling, should the lift rope break.

Outfit consists of the following items: One elevator, made of oak timber, 7 feet high, with platform, 26x29 inches; one counter balance weight and three equalizing weights; guide rails, 2x1  $\frac{5}{8}$  inch pine, sufficient for a 40 foot lift; 8 strand, 16 wire steel cable lift rope running over heavy cast sheave; one each of guide and trail ropes.

For lifts over 40 feet an extra charge per foot is made. Extra weights furnished to carry two men, if desired.

★ NET EACH, \$65.00

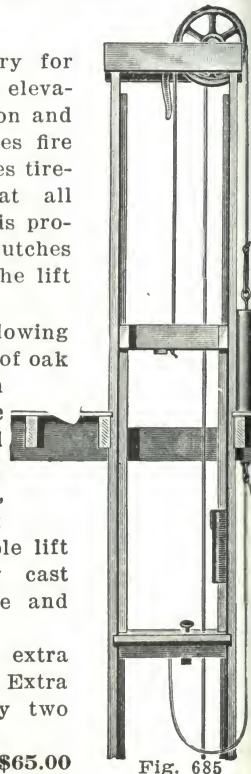


Fig. 685



# IMPERIAL SPRAY PAINTING EQUIPMENT

## HI-DUTY SPRAY GUN

FOR ALL CLASSES OF PAINTING

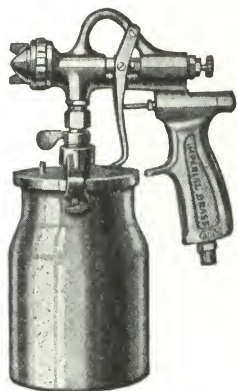


Fig. 4659

This spray gun produces a flow of material perfectly atomized and free from streaks, thereby assuring a uniform wet coat. It is simple in construction, light weight, perfectly balanced, and easy to clean and keep in shape. Has stainless steel fluid needle and air valve stem and the brass tapered air cap and tapering fluid nozzle makes possible perfect control from fine line to a broad ellipse with uniform coverage.

Mfrs. 67-C—Hi-Duty Spray Gun with cup assembly, wrench, and cleaning brush. ★ **NET EACH, \$28.85**

Mfrs. 65-C—Hi-Duty Spray Gun without cup assembly. ★ **NET EACH, \$24.85**

Mfrs. 77-C—Junior Spray Gun with cup assembly, wrench and cleaning brush. ★ **NET EACH, \$18.35**

Mfrs. 75-C—Same as No. 77-C but without cup assembly. ★ **NET EACH, \$14.85**

## PAINT SPRAY OUTFITS

FOR SHOPS WITH AIR SUPPLY

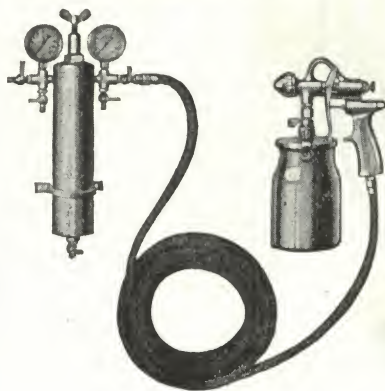


Fig. 4662

Mfrs. 73-C—Outfit consists of:

1 67-C—Hi-Duty Spray Gun with 1 qt. cup assembly, wrench and cleaning brush. ....★**\$28.85**

25-foot length  $\frac{5}{16}$ -inch corrugated heavy duty air hose. ....★**\$4.50**

1 69-C—Hi-Duty Water and Oil Separator and Regulating set. ....★**\$27.50**

73-C—Outfit Complete.

★ **NET, \$60.85**

### NOTE:

We are Authorized Distributors of Imperial's Complete Line of Paint Spraying Equipment. Write us about your paint spraying problems and we will furnish complete data and prices. Please advise material to be sprayed and kind of work.

## PAINT SPRAY OUTFITS



Fig. 4665

### $\frac{3}{4}$ H.P., WITH COMPRESSOR

For factory, and office building maintenance, consists of:

1 3-CPF  $\frac{3}{4}$  horse power portable air compressor with water and oil trap with drain valve and automatic unloader, pressure gauge, and safety check valve. 10-foot length of electric cord (AC-1 phase, 60 cycle, 110 or 220 volt) .....★**\$137.00**

1 77-C—Imperial junior paint spray gun .....★**\$18.35**

1 25-foot length  $\frac{1}{4}$  inch air hose with connections .....★**\$4.05**

1 12-foot length  $\frac{1}{4}$  inch air hose with connections .....★**\$2.36**

1 12-foot length  $\frac{3}{8}$  inch fluid hose with connections .....★**\$3.28**

1 71-C—two-gallon material pressure feed container with regulator .....★**\$22.50**

1 97-C—fluid cut-off cock .....★**\$1.00**

1 95-C—air adjusting valve. ....★**\$1.50**

No. 23-CPF Outfit complete.

★ **NET, \$190.04**

### $1\frac{1}{2}$ H.P., WITH COMPRESSOR

For canneries, dairies, ice-cream plants and factory maintenance, etc.

No. 24-CPC Outfit complete ★**\$293.30**

# BINKS $\frac{1}{4}$ HORSE POWER PAINT SPRAYING UNITS

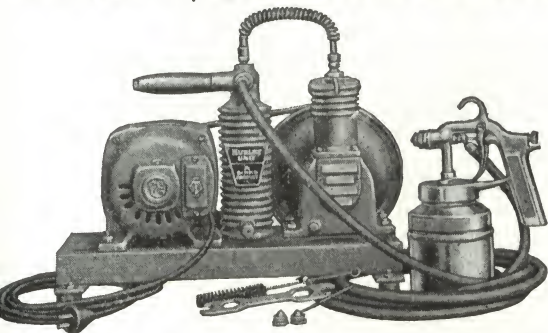


Fig. 4816

This small, extremely compact, completely self-contained light weight unit can easily be carried by the convenient hand grip. For all painting operations at any place where there is a light socket available. Ideal for spraying screens, radiators, furniture, machinery and other maintenance painting in factories, homes, offices and public buildings.

The compressor is driven by  $\frac{1}{4}$  H.P. electric motor with 10 foot length rubber covered cord and plug. Handy on and off Toggle switch on motor. Compressor is one cylinder, air cooled, wick feed lubrication, bore 2 inch stroke, 1- $\frac{3}{8}$  inch, displacement 2.23 cubic feet each minute, speed 700 R.P.M. Pulley has fan blades spokes for cooling purposes and is driven by "V" belt. Air chamber diameter is 3 inches by 9 inches high and is used as oil and water extractor. It is constructed with fins to cool the air; equipped with drain cock, safety pop valve; connected to compressor by copper tube; mounted on a pressed steel base fitted with rubber feet. Iron pipe thread hose connections. Compressor unit is 18- $\frac{1}{2}$  inches long; 9- $\frac{1}{2}$  inches wide; 14- $\frac{3}{4}$  inches high.

**UNIT C1/4 EX.** Consist of: Model X spray gun with flat, round and right angle spray nozzles; Quart pressure cup; 15 foot length  $\frac{1}{4}$  inch 2 ply rubber air hose and connections; Compressor unit; Wrench; Cleaning tool; and brush. Net weight, 50 pounds.

A.C. 110 Volt, Single Phase, 60 Cycle.

★ **NET EACH, \$52.95**

A.C. 110 Volt, Single Phase, 25 Cycle.

★ **NET EACH, \$55.25**

D.C. 115 Volt .....★ **NET EACH, \$61.75**

**UNIT C1/4E-22.** With lower priced No. 22 Spray gun with pint mason jar in place of Model X Spray gun. Net weight, 50 pounds.

A.C. 110 Volt, Single Phase, 60 Cycle.

★ **NET EACH, \$44.25**

A.C. 110 Volt, Single Phase, 25 Cycle.

★ **NET EACH, \$46.55**

D.C. 115 Volt .....★ **NET EACH, \$53.05**

**UNIT C1/4ET.** This is unit C1/4EX plus: a two gallon pressure material container; 20 feet  $\frac{3}{8}$ -inch rubber air hose with  $\frac{1}{4}$  inch connections; 12 feet  $\frac{3}{8}$  inch rubber material hose with connections; air adjusting valve. Net weight 80 pounds.

A.C. 110 Volt, Single Phase, 60 Cycle.

★ **NET EACH, \$83.55**

A.C. 110 Volt, Single Phase, 25 Cycle.

★ **NET EACH, \$85.85**

D.C. 115 Volt .....★ **NET EACH, \$92.35**

**C1/4E Compressor Unit Only.** Net weight, 47 pounds.

A.C. 110 Volt, Single Phase, 60 Cycle.

★ **NET EACH, \$38.20**

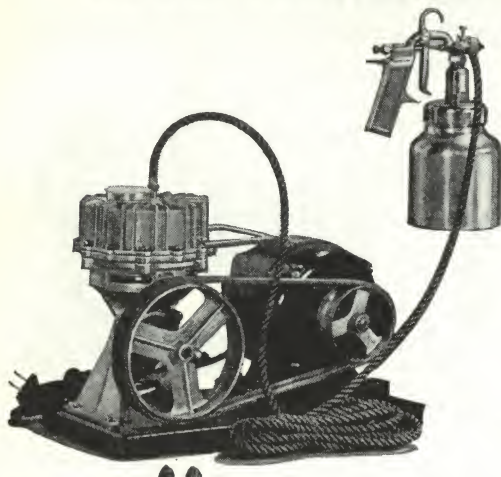
A.C. 110 Volt, Single Phase, 25 Cycle.

★ **NET EACH, \$40.50**

D.C. 115 Volt. ....★ **NET EACH, \$47.00**

**NOTE:** We are authorized distributors of BINKS Paint Spraying Equipment and will send promptly on request complete data, information and prices. Please specify material you want to use and the kind of work you have.



**'DO-ALL' PAINT SPRAYING OUTFIT**

A modern method at low cost. All purpose medium size paint spray outfit. Compressor has double bearing crank shaft. Splash oiling system, like your automobile. Latest type internal mix pressure feed spray gun. A most economical and efficient method for applying paint and other fluids to any surface or article. It is compact, very portable, simple in operation, and is 4 to 6 times as fast as brushing. Spraying affords a maximum of paint penetration and durability without brush marks or streaks. A real paint job. Quiet in operation. Cannot pump oil at any time. The compressor has an exclusive air storage tank in its head.

**4812 COMPLETE UNIT.** Consists of: Clean air compressor. Powerful 1725 R.P.M. 1/4 H.P. A.C. 110 Volt, 60 cycle, split phase, motor; with flat belt, mounted on a steel base; 15 feet air hose; Pressure feed, internal mix spray gun with round, fan and angle nozzles; and quart aluminum cup. Shipping weight 44 pounds.

★ **NET EACH, \$33.00**

**4813 UNIT WITHOUT MOTOR.** Shipping weight, 20 pounds.

★ **NET EACH, \$18.50**

**4815 COMPRESSOR ONLY.** In addition to paint spraying, this clean air compressor can be used for air agitation in plating tanks, chemical tanks, etc., brazing blow pipes, Bunsen burners, air pressure, etc. also as a vacuum pump by changing hose connection. Capacity is 1-1/2 to 2 cubic feet FREE AIR each minute. On steel base with belt and pulley only. Safety valve, adjustable for pressures 10 to 50 pounds. Shipping weight, 17 pounds.

★ **NET EACH, \$10.60**



**4814 COMPLETE UNIT WITH PAINT CONTAINER.** Consists of complete unit listed above plus: 2-1/2 gallon pressure paint container; 10 feet of air hose; cocks; gaskets; and connections. Shipping weight, 64 pounds.

★ **NET EACH, \$43.00**

**'DO-ALL' AIR LINE PAINT SPRAY UNIT**

A small model factory production spray gun and unit at a low price. For use where compressed air is available. Suitable for production, maintenance, and refinishing on almost any surface with any sprayable material.

The filter assures clean work; avoids spoilage; and effectively removes oil, water, and foreign matter from any air line.

The Air Regulator insures proper regulation, and uniform pressure of air for spraying. It may be used on air line pressures up to 250 pounds; and can be regulated from 10 to 75 pounds.

The external mix spray gun is easy to operate, and easily cleaned to change colors. Nozzle produces vertical and horizontal fan spray in widths 1 to 6 inches. Quarter turn of nozzle changes spray from fan to round. Gun is die cast alloy, needle control by two-finger trigger, pistol grip. Quart aluminum cup.

**COMPLETE PAINT SPRAY UNIT.** Gun, air filter, external mix gun. 25 feet air hose, shipping weight is 7 pounds.

★ **NET COMPLETE, \$15.00**

**AIR LINE REGULATOR ONLY.** May be used on any air line for any purpose. ★ **NET EACH, \$2.35**

**AIR LINE FILTER ONLY.** Can be used on any air line for any purpose. ★ **NET EACH, \$1.25**

**GUN ONLY** ★ **NET EACH, \$8.50**

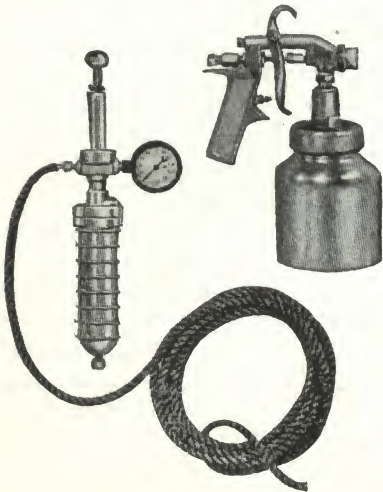


Fig. 4921

**LIGHTNING COMPRESSED AIR SPRAYER**

Fig. 3969

Will spray anything in liquid form and is easily operated. No complicated parts to get out of order. Principal working parts are of brass. 25 inches high by 7 inches. Heavy galvanized steel tank and has a capacity of about 3-1/2 gallons. Seamless brass pump, 1-3/4 inch diameter. Brass pump head 23 inches, 1/2 inch hose. Automatic non-clog nozzle. 5 different spray. Shoulder strap. Shipping weight 10 pounds.

★ **NET EACH, \$4.00**

**BANNER COMPRESSED AIR SPRAYER**

Fig. 3331

Full 4 gallon heavy galvanized steel or solid brass tank, heavily corrugated, riveted and double seamed. Guaranteed. Double tested and thoroughly inspected. For spraying all liquids, insecticides, whitewash, cold water paints, disinfectants, cow spray, sheep dip, floor oils, etc. For cleaning automobile motors, oiling springs. Washing automobiles, windows, etc. Staining shingles, porch furniture. Greenhouse work. Removing wallpaper. A fire extinguisher. 26 1/2 inches high. 7 1/2 inch diameter. Heavy seamless brass pump 2 inch diameter, with heavy cast brass pump head, all in one unit, does not come apart each time the pump is removed from tank but may be quickly taken apart. 28 inches 1/2 inch 5 ply best grade hose. Golden automatic non-clog brass nozzle. 5 different sprays. 2 foot angle brass extension. Adjustable shoulder strap with snap ends. Shipping weight, 13 pounds.

★ **NET EACH**

All Brass Tank.....\$9.50

Galvanized Steel Tank.....\$6.25



### HUDSON PERFECTION COMPRESSED AIR SPRAYER



Fig. 4649

The construction permits the use of extremely high pressures. For all kinds of spraying, small orchards, vineyards, gardens, whitewash, cold water paints, shingle stain, removing all paper, resizing walls, etc. 4-gallon tank,  $7\frac{1}{2}$  inch diameter by 14 inches high. All seams are riveted and soldered. Wide funnel for filling at top eliminates waste. Seamless brass pump,  $1\frac{1}{4}$  by  $15\frac{1}{2}$  inches long, develops high pressure easily. 27 inches of high pressure discharge hose with brass automatic shut-off nozzle. 2-foot brass extension rod, may be extended with pipe. Nozzle is adjustable from any spray to a stream. Shipping weight, 13 pounds.

Galv. Tank... ★ Net Each, \$6.00  
Copper Tank... ★ Net Each, \$9.75

### HUDSON DU-MORE CONTINUOUS COMPRESSED AIR SPRAYER

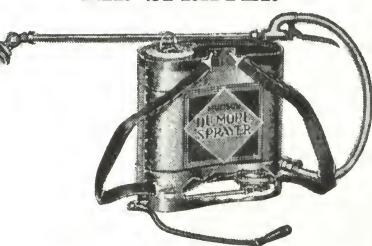


Fig. 4650

For all horticultural spraying, etc. 5-gallon tank. Copper tank is recommended where insecticides are to be used. Large capacity brass air chamber assures continuous high pressure. The pump operates with remarkable ease, the long handle is at the right of the user. 3 feet  $\frac{3}{8}$  inch high pressure spray hose. 2-foot iron extension rod, shut-off valve and brass angle nozzle. Shipping weight,  $17\frac{1}{2}$  pounds.

Galv. Tank... ★ Net Each, \$14.00  
Copper Tank... ★ Net Each, \$21.00

### HUDSON IDEAL WHEEL BARROW SPRAYER

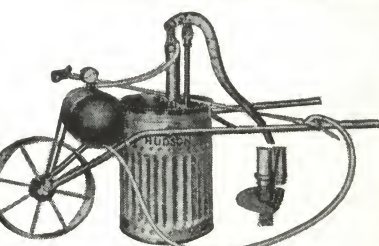


Fig. 4653

For whitewash and liquids with sediment attach hose direct to pump head. Pump is fastened in top of tank. Non-clogging, tubular brass strainer is cleaned with special dasher agitator. 18 gallon heavy galvanized tank. Air pressure tank is made of boiler iron, tested, and fitted with pressure gauge reading 200 pounds. Heavy steel frame. Strong wheel, 18 inch diameter and  $2\frac{1}{2}$  inch steel tire. 6 feet  $\frac{3}{8}$  inch spray hose and 4 foot  $\frac{1}{4}$  inch iron pipe extension. Angle brass nozzle. Leakless shut-off.

Complete... ★ NET EACH, \$30.75  
Less Air Tank... ★ NET, \$20.25

### HUDSON MORO SPRAY PUMP

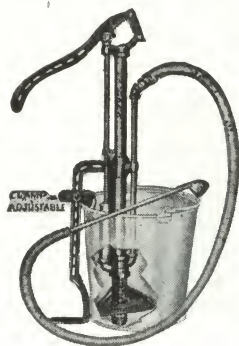


Fig. 4651

For use with whitewash, cold water and cement paints, sediment bearing solutions and for garden use. Non-clogging tubular brass strainer is cleaned by special steel dasher agitator at each stroke of the pump. Working parts are brass. Nozzle discs are reversible, producing any desired spray from the finest mist to a coarse stream. Malleable iron foot rest. Adjustable clamp holds pump securely in pail. Pail is extra, see page 400. Cylinder is seamless brass tubing  $1\frac{1}{2}$  by 6 inches. Air chamber  $1\frac{1}{2}$  by  $21\frac{1}{2}$  inches. Shipping weight,  $10\frac{1}{2}$  pounds.

★ NET EACH, \$6.40

### HUDSON BARREL SPRAY PUMP

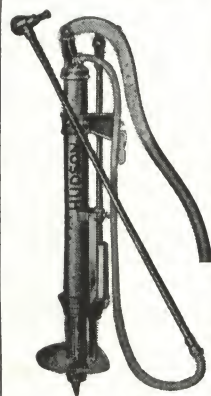


Fig. 4652

Powerful. Light. Durable. Has ample capacity for 2 leads of hose and maintain a working pressure of 200 pounds. Adapted for whitewash, cold water paints, disinfectants, insecticides, etc. Cylinder is seamless brass tubing,  $1\frac{1}{4}$  by 6 inches. High carbon steel air chamber 2 inches in diameter. Double acting plunger. Bronze valve balls. Special non-clogging tubular brass screen strainer is kept clean with dasher

agitator. Shipping weight 33 pounds. Discharge equipment consists of: 6 feet of  $\frac{3}{8}$  inch high pressure spray hose, 4 foot extension rod and brass angle nozzle.

Complete... ★ NET EACH, \$11.75  
Less Discharge Equipment... ★ NET, \$9.75

### WHITE WASHING & COLD WATER PAINT SPRAYING MACHINES

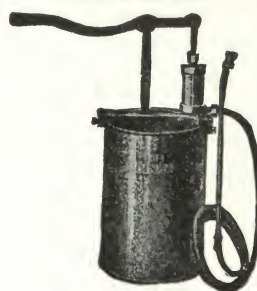


Fig. No. 2019

Mfrs. No. 20. Portable general purpose sprayer. Adapted for cold water paint, whitewash, insecticides, etc. 6 gallon tank. Net weight, 20 pounds. 10 feet  $\frac{3}{8}$  inch discharge hose, spray pipe, shut-off valve and nozzle ready for work.

★ NET EACH, \$14.00



Fig. No. 3627

Mfrs. Style H. Compressed air sprayer 5 gallon capacity. Practical. For whitewash spraying, insecticides and disinfectants or any solution that can be formed into a spray. 5 gallon tank. Net weight, 15 pounds. 10 feet  $\frac{3}{8}$  inch discharge hose, spray pipe, shut-off valve and nozzle, ready for work.

★ NET EACH, \$11.90



Style "A"

Fig. No. 2014

Mfrs. Style A. Heavy duty spray outfit. For one operator of spray. For a large amount of work to perform continuously or at intervals. Each unit is complete with all accessories ready for operation. Sieve furnished for straining the whitewash or cold water paint, a suction hose strainer is also furnished. 20 feet  $\frac{1}{2}$  inch discharge hose, spray pipe, shut-off valve, pressure gauge. Net weight, 80 pounds.

★ NET EACH, \$42.00



## LITTLE GIANT BUCKET SPRAY PUMP

Constructed of brass, not affected by chemical action of spraying solutions.

Provided with a large air chamber, and ball valves. The pressure is held uniformly and nozzle throws a continual spray. It will throw a solid stream 50 feet. Arranged with an agitator to keep the solution thoroughly mixed. Each style fitted for  $\frac{1}{4}$  inch pipe, complete with hose.



Fig. No. 756

Standard model (Fig. No. 756) with combination nozzle.

LIST EACH, \$3.75

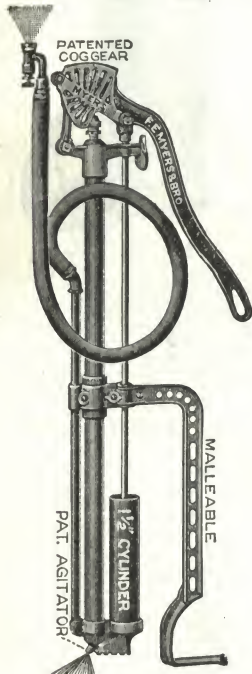


Fig. No. 757

Lever handled model (Fig. No. 757) with Vermorel nozzle.

LIST EACH, \$6.00

PRICE ..... LIST NET

## TIN SPRAYER

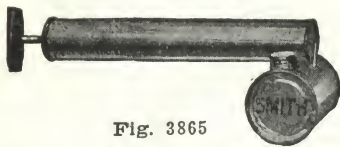


Fig. 3865

Tank and pump head is double seamed. Heavy material. Double tested. Made in tin. Pump chamber 10 inches by  $1\frac{1}{4}$  inches. Capacity about  $\frac{3}{4}$  pint. Will not siphon. No drip cup necessary.

★ NET EACH, \$0.24

## SPRAY NOZZLES

In spraying the best results are obtained by applying a light mist, not heavy drops. These nozzles are made to meet this requirement. Each style is fitted for  $\frac{1}{4}$  inch pipe.

### Imperial



Fig. 759

Mfrs. 642. An improved spray nozzle which throws a mist-like spray. Easily cleaned by removing cap. Fitted for  $\frac{1}{4}$  inch pipe.

★ NET EACH, \$0.45

### Vermorel



Fig. 552M

Mfrs. 1563. For spraying, not for sprinkling. Two caps, one for fine spray, and one for coarse spray. Fitted for  $\frac{1}{4}$  inch pipe.

★ NET EACH, \$0.90

### Bordeaux



Fig. 758

Mfrs. 2097. A fan shaped spray, solid stream, or shut-off. spray clogs, turn handle. Fitted for  $\frac{1}{4}$  inch pipe.

★ NET EACH, \$0.90

## Golden Automatic

Fig. 4315

Mfrs. 129-145. Brass automatic control or shut-off. With brass non-clog spray nozzle that throws a large, broad mist or long distance spray and is easily taken apart. Fitted for  $\frac{1}{2}$  inch hose.

★ NET EACH, \$1.50



## STURDY SPRAY PUMP

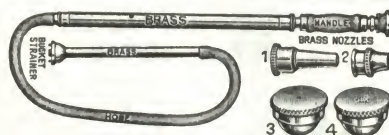


Fig. 3866

Double action. Heavy solid brass. With slow, easy pumping the nozzle throws a powerful continuous, unbroken spray or stream. Used with any paint bucket, barrel, tank, etc. Work with ease on the up-and-down stroke, one brass tube inside the other. Brass ball valves. Four nozzles: Nozzle No. 1 throws a straight stream 50 to 60 feet; used for washing windows, autos and for extinguishing fires, etc. Nozzle No. 2 throws a wide, coarse spray for trees, lawns, flower beds, etc. Nozzle No. 3 is provided with a strainer to prevent clogging and throws a large, broad, powerful, fine mist spray for spraying shrubbery, gardens, small trees, disinfectants, etc. Nozzle No. 4 throws a wide, powerful spray for spraying trees, whitewash, paints and for sprinkling plants, lawns, etc.

★ NET EACH, \$4.20

## SAVOL CONTINUOUS SPRAYER

Fig. 3867

FOR ALL AROUND  
SPRAYING

Glass jar,  $5\frac{1}{4}$  by  $4\frac{1}{4}$  inches, mason jar thread, easily filled and cleaned. For spraying all kinds of lacquers, paints, disinfectants, insecticides, lubricants, paint removers, bronze or lacquer for radiators, etc. Pump chamber is 15 by  $1\frac{1}{4}$  inches. 18 inches overall. Two brass nozzles for straight or angle spray fastened together on swivel plate. Brass nozzle head, liquid tube and ball check valve. Demountable for cleaning without tool.

★ NET EACH, \$1.10



## SAVAGE JUNIOR POWDER DUSTER

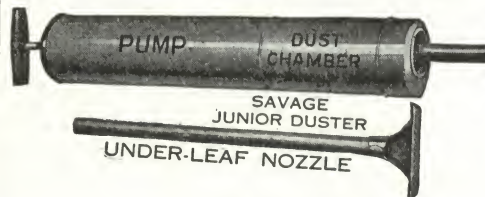


Fig. 3868

ough atomization of powder makes it impossible for lumps to feed through nozzle. Throws long broad dust blast straight ahead and when under-leaf extension nozzle is attached, easily dusts under side of leaves on low growing vines or at any angle. Made of heavy sheet steel.  $19\frac{1}{2}$  inches long. 2 3/4 inches in diameter. Large opening for filling. Extension tube for dusting under side of leaves or at any angle.

★ NET EACH, \$1.10

For dusting all garden crops, flowers, bushes, trees, poultry houses, etc. Handles arsenate of lead, arsenate of calcium, paris green, sulphur, slug shot, bug death, carbolic acid gas, and other dust perfectly. Dusts without waste and is easily operated. Long air chamber develops strong blast. Large dust chamber. Thorough atomization of powder makes it impossible for lumps to feed through nozzle. Throws long broad dust blast straight ahead and when under-leaf extension nozzle is attached, easily dusts under side of leaves on low growing vines or at any angle. Made of heavy sheet steel.  $19\frac{1}{2}$  inches long. 2 3/4 inches in diameter. Large opening for filling. Extension tube for dusting under side of leaves or at any angle.



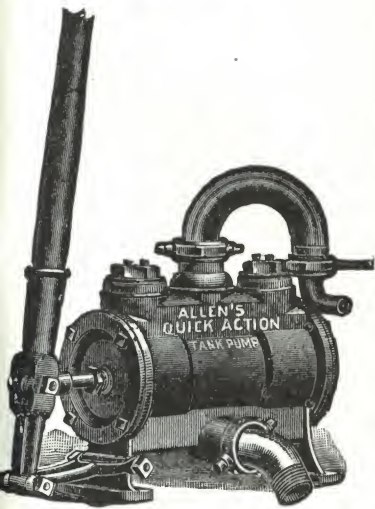
**ALLEN'S THRESHER TANK PUMP****Brass Valve Seats—Double Acting**

Fig. No. 752

Allen's double action thresher tank pump is first class in every particular. In the construction of this pump we have combined the desirable qualities of a lifting pump with some features of a force pump, with the result that it works easier and discharges a more continuous stream than any other pump of its kind on the market. The cylinder is 5 inches in diameter. Brass valve seats, 5 inch stroke, 2 inch suction and discharge.

LIST EACH, \$13.60

DISCOUNT .....20% OFF

**PLAIN TRANSFER TIN PUMPS**

Fig. No. 762

No. 4. 1½ inches diameter. Length of stock, 31 to 39 inches. Brass valve.

LIST EACH, \$3.35

No. 5. 1½ inches diameter. Length of stock, 4½ feet. Made of heavy tin and banded joints.

LIST EACH, \$5.00

No. 6. 1½ inches diameter. Length of stock, 6½ feet long. Made of heavy tin and banded joints.

LIST EACH, \$8.55

DISCOUNT .....20% OFF

**MYERS DOUBLE ACTING FORCE TANK PUMP**  
**Brass Valve Seats—Reversible Cog Gear Head**  
**CAPACITY 2000 GALLONS PER HOUR**

For Filling Thresher Tanks, Washing Out Boilers, Irrigation Purposes, Pumping Water from Trenches, Shallow Wells, Cellars, Barnyards, etc.

Compactness and Strength for Size and Weight; Large and Direct Waterways; Ample Valve Capacity; Easy Operation, Enable the Pump to Throw an Abundance of Water with the Least of Pumping Labor.

An entirely new design of low down construction. This pump has many desirable features, especially the reversible cog gear head by means of which the power required to operate is reduced one-third, the piston moves in a direct line with the cylinder without carrying the weight of the handle, which reduces the friction and eliminates wear on rod and stuffing nut. The cog gear head is reversible and can be used on either end of pump. Short fulcrum with a full 5 inch stroke.

This pump was designed so that all working parts can be easily reached for inspection or repairs. All through bolts are used, no cap screws. By loosening the bolts and removing cap all valves are exposed—which permits quick removal when necessary. A wrench is the only tool needed. It is fitted for 2 inch suction hose, and both suction and discharge are union nutted and tapped for 2 inch iron pipe. Drip cocks are provided for draining cylinder to prevent freezing. Spout is reversible.

Mfrs. No. R479 Pump complete with hose nipple, hose band and strainer.

LIST EACH, \$14.50

Mfrs. No. R479½ Brass Lined Pump, complete with hose nipple, hose band and strainer.

LIST EACH, \$17.50

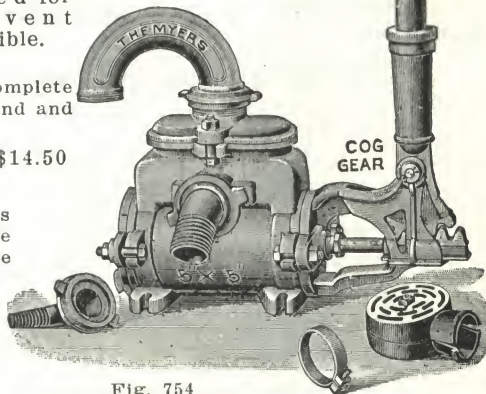


Fig. 754

Note—For Tank Hose See Page 39.

PRICE .....LIST NET

**BRACKET PUMPS**

Made to attach to the wall with a bracket instead of attaching to base board. Handle and spout can be set at any angle, independent of each other or of pump barrel. Capacity, 10 gals. per minute; lift (average), 26 ft. Made with brass cylinder, 2½ in. diameter; 4½ in. stroke; bronze pump rod; solid brass stuffing box and valve seat; leather valve and 2½ in. cup leather, suction tapped for 1¼ in. iron pipe; drained by lifting handle; finished in aluminum bronze and polished brass.

\* Fig. No. 1902 also tapped at top for 1 in. pipe for pumping water to an upper floor, or can be used as "booster" pump.

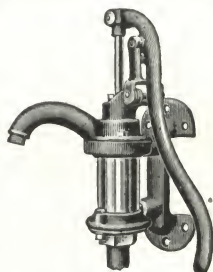


Fig. No. 1901

Force Pump with threaded spout.

LIST EACH, \$8.90

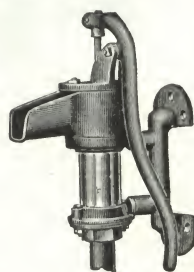


Fig. No. 453H

Force Pump with open spout.

LIST EACH, \$8.90

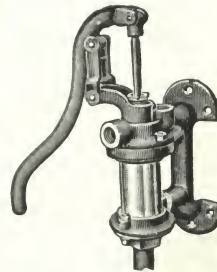


Fig. No. 1902\* Force Pump with ¾ in. threaded opening, for lever handled faucet.

LIST EACH, \$8.90

DISCOUNT .....15% OFF



## PITCHER SPOUT PUMPS

Substantial and well built in every way from first class material, nicely finished. Special machines are used in polishing the cylinder to insure a smooth surface for the plunger leather.

**Cylinder.** Iron. Stroke, 4 in.

**Revolving bearer top.** Enables the user to operate the lever from the most convenient position. The top is secured to the cylinder by a set screw.

**Spout.** Designed to eliminate slopping. Lip prevents water from dripping down the pump.

**Suction lift.** 25 feet. Horizontally the suction pipe may extend a short distance.

**Cut-off base.** Note the cut-off base which allows a basin or other receptacle to be placed directly under the spout. Base is fitted with nut tapped for 1 1/4 inch iron pipe, so that pipe can be screwed in. When lead pipe is used, a soldering tube is introduced through a coupling or nut fastened to the hub under the base. Unless lead pipe connection is specified, iron pipe will always be furnished.

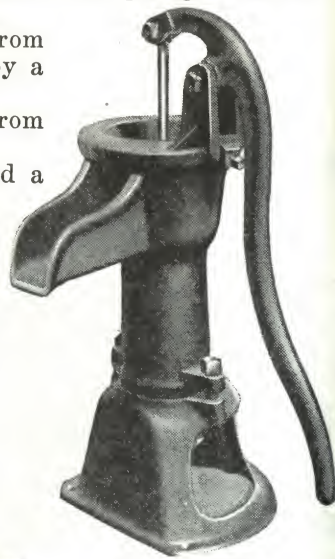


Fig. No. 35L

NO. 2	NO. 2B	NO. 3
3 INCH	3 INCH BRASS	3 1/2 INCH
IRON CYLINDER	LINED CYLINDER	IRON CYLINDER
<b>\$2.70</b>	<b>\$4.80</b>	<b>\$4.20</b>
LIST EACH	LIST EACH	LIST EACH
DISCOUNT		20% OFF

### REPAIRS FOR NO. 35L PUMP

Number	2	3
Diameter cylinder, inches	3	3 1/2
Lever	List Each, \$0.50	\$0.50
Bearer	List Each, .55	.60
Cylinder	List Each, 1.50	1.50
Plunger and Rod Complete	List Each, .70	.90
Plunger Top	List Each, .20	.25
Plunger Bottom	List Each, .15	.25
Plunger Valve	List Each, .10	.10
Plunger Rod	List Each, .10	.10
"C" Base	List Each, .75	1.10
Suc. Nut G for Iron Pipe Connection	List Each, .25	.25
Suction Valve Weight & Screw	List Each, .10	.10
PRICE	LIST NET	LIST NET

### PLUNGER

Plunger and rod with one leather... LIST EACH, \$0.70

### PUMP BRACKET

Cast iron bracket for pitcher spout pumps, attached to roll or flat rim sinks.

LIST EACH, \$1.35

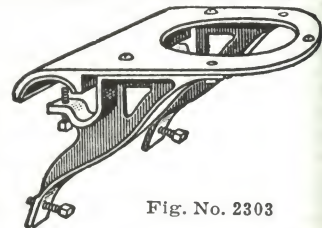


Fig. No. 2303

PRICE LIST NET

### KITCHEN FORCE PUMPS

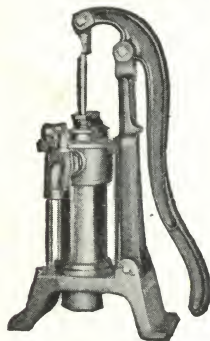


Fig. 2396T  
Faucet Spout  
3/4 Inch Discharge

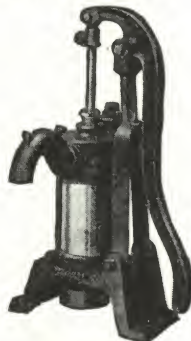


Fig. 2335T  
Siphon Spout  
1 Inch Discharge

For use on wells or cisterns where the vertical suction lift is not over 25 feet. 3 inch polished brass cylinder. Brass stuffing nut. Brass piston rod. Brass valve seat. Rugged cast iron construction. Easy working 20 inch handle. Fitted for iron pipe. Pump is tapped in back for 1 inch pipe for elevating water overhead. Suction pipe is not included.

**Fig. 2396T Faucet Spout.** 3/4 inch discharge. 1 1/4 inch pipe. Approximate weight, 22 pounds. LIST EACH, \$7.50

**Fig. 2335T Siphon Spout.** 1 inch discharge at spout. 1 1/4 inch pipe. Approximate weight, 24 pounds.

LIST EACH, \$6.45  
DISCOUNT 20% OFF

### CISTERN FORCE PUMPS

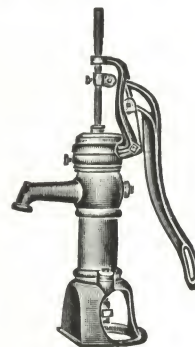


Fig. No. 6L

This style of pump is frequently preferred to the pitcher spout type, and, in many ways, is a better pump. It has a polished piston rod and brass stuffing box, and is in every way complete. The design provides a connection for 1 in. pipe at the back, as shown in the illustration. These pumps are fitted at the base with connection for 1 1/4 in. pipe, lead or iron, but are shipped fitted for iron pipe unless otherwise specified.

3 inch iron cylinder.

LIST EACH, \$6.95

3 inch brass lined cylinder.

LIST EACH, \$8.00

DISCOUNT 20% OFF



**FORCE PUMP HEAD**

**Hand and Windmill**

**With One-Piece Welded Piston Rod and Windmill Bar**

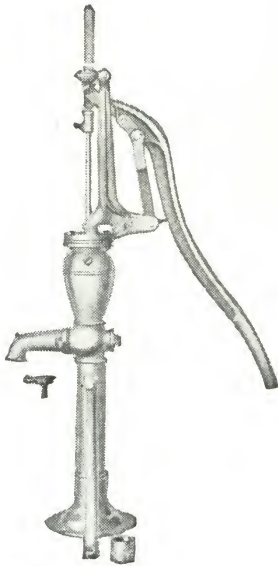


Fig. 749T

For deep or shallow wells. The most popular and most practical of Agricultural pump heads for general force pump service in deep or shallow wells. Can be operated by hand, windmill, or pump jack.

Windmill bar and piston rod are welded together to take off the jar and to eliminate the troubles arising from set screws, couplings, and the like from shaking loose. The two form one unit  $1\frac{1}{8}$  inches wide, threaded for  $\frac{1}{4}$  inch well rod, also for  $\frac{3}{8}$  inch pipe.

Pump head is well built throughout with a bolted flange head, renewable bushing at the top and renewable stuffing box at the bottom of the head for lasting alignment and to eliminate side motion, a spacious air chamber, roller fulcrum bearing, and constructed from extra heavy, fine-grained, rugged cast-iron. Long, balanced easy working handle. Brass stuffing nut. Tapped for 2 inch pipe and furnished with reducing bushing for  $1\frac{1}{4}$  and  $1\frac{1}{2}$  inch pipe. Back of stand tapped for  $1\frac{1}{4}$  inch pipe. Plain spout. Approximate weight, 79 pounds.

6 Inch Stroke.

LIST EACH, \$11.35

Adjustable Stroke, 6 and 10 in.

LIST EACH, \$12.00

Compression Spout.

LIST EXTRA, \$1.45

DISCOUNT .....20% OFF

**REPAIRS FOR FIG. NO. 38L SET LENGTH PUMP**

	List Each
Lever .....	\$1.00
Crosshead .....	.25
Bearer .....	.65
Stock .....	4.50
Connecting or Plunger Rod .....	.35
Set Length Pipe.....	1.25
Brace .....	.25
PRICE .....	LIST NET

**SET LENGTH PUMP**

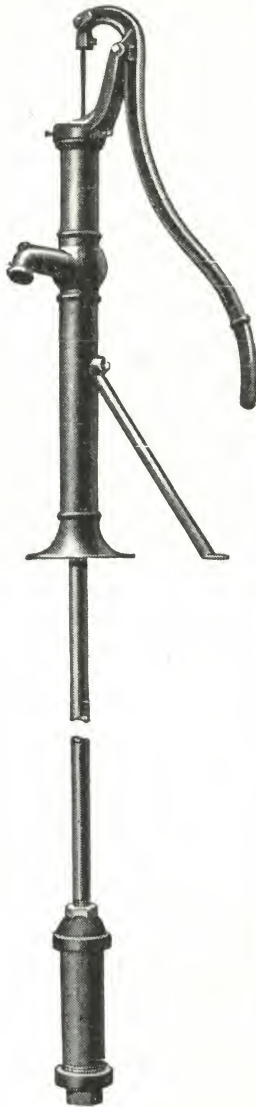


Fig. No. 38L

A well-proportioned, good weight, well finished set length pump, designed for shallow wells. The pipe screws into the standard at the spout and measures four feet from base of standard to bottom of cylinder. Drip hole above the cylinder which makes it anti-freezing. Size cylinder, 3x10 inches.

LIST EACH PUMP

3 foot, iron cylinder.....	\$9.20
3 foot, brass lined cylinder .....	\$12.35
DISCOUNT .....	20% OFF

**UNDERGROUND FORCE PUMP HEAD**

**Hand and Windmill**

**With Three-Way Underground Brass Discharge Valve, Flange Head, and Brass Packing Tube**

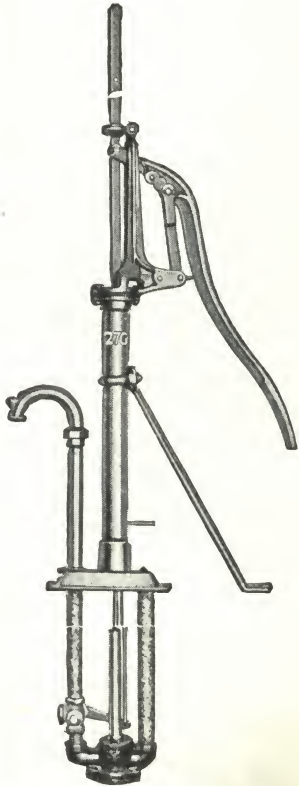


Fig. 27T

For deep or shallow wells. A lift and force pump head operated by hand, windmill or power. Brass packing tube for the stuffing box. Will discharge above ground at the spout or underground to a distant point through the underground discharge. The course of the water is regulated by means of a three-way valve, which is operated by a convenient lever at the base of the pump. Flange head insures long life and minimizes vibration when pump is used with a gasoline engine. Lasting alignment. Brass stuffing nut. Extra heavy rugged cast-iron construction. Trouble-proof. Roller fulcrum bearing. Long, balanced, easy working handle. All parts are easy of access.

Standard is of  $2\frac{1}{2}$  inch high grade heavy wrought iron pipe.  $1\frac{1}{2}$  inch pipe running from the base of the pump to the lower discharge casting, acts as an air chamber insuring ease of operation. Pump is tapped in the bottom of the casting for 2 inch pipe and bushed to  $1\frac{1}{4}$  inch pipe. Flanges tapped  $2\frac{1}{2}$  and 3 inch can be supplied, prices on application. Underground discharge is  $1\frac{1}{4}$  inches. Spout discharge, 1 inch. Approximate weight, 135 pounds.

6 Inch Stroke.

LIST EACH, \$20.95

Adjustable Stroke, 6 and 10 in.

LIST EACH, \$21.50

DISCOUNT .....20% OFF



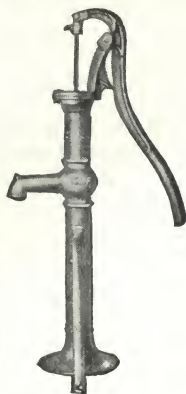
**HAND LIFT PUMP HEAD**

Fig. 150T

For cisterns, shallow and deep wells. Equipped with bolted Flange Head, making for strength. Pump rod attaches to handle by coupling and set screw. Long, balanced, easy working handle. Rugged cast iron construction. 6 inch stroke. 1 1/4 inch pipe. Approximate weight, 40 pounds.

LIST EACH, \$5.70

Anti-Freeze Set Length can be furnished, price on application.

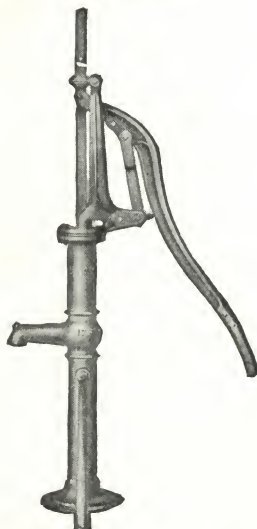
**HAND AND WINDMILL LIFT PUMP HEAD**

Fig. 17T

For shallow or deep wells, and cisterns up to 100 feet in depth. Flange head strengthens the pump. Head can be turned to locate handle at any desired position. Renewable bushings at top and at bottom of head keep the windmill bar and piston rod properly aligned. The close fit of the bushing plate to the windmill bar keeps foreign matter from getting into the working parts. Roller bearing fulcrum. Long, balanced, easy working handle. Heavy rugged cast iron construction. Tapped for 2 inch pipe and furnished with bushing for 1 1/4 and 1 1/2 inch pipe. Approximate weight, 62 pounds.

6 Inch Stroke ..... LIST EACH, \$8.50

Adjustable Stroke, 6 and 10 inches.

LIST EACH, \$9.15

Set Length can be furnished, price on application.

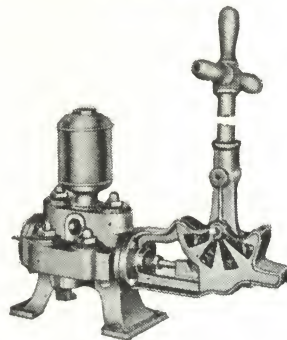
**DISCOUNT****DOUBLE-ACTING HORIZONTAL FORCE PUMP**

Fig. 387SV

For hand or power use. For cisterns or shallow wells where the vertical suction lift does not exceed 25 feet. Horizontally it will draw liquid any reasonable distance. Adapted for water supply service in small residences with pressure or open tanks.

Suction and discharge openings at both sides of pump, making possible connection with either side. Front and back cylinder heads are reversible to suit conditions. Four pumping valves are ranged in pairs on brass valve seats, one pair elevated to retain prime, they are easily accessible and can be quickly removed without disturbing pipe connections. 3 inch brass lined cylinder. Schrader air valve in back plate of pump automatically supplies air to tank, when cap is unscrewed. Ratchet head construction keeps piston rod in alignment, reducing friction and wear. Brass piston rod, valve seats and poppet valves. Extra heavy cast iron construction. Spacious air chamber. Suction fitted for 1 1/4 inch pipe. Discharge tapped for 1 inch pipe. Approximate weight, 70 pounds.

Brass Lined Cylinder ..... LIST EACH, \$16.95

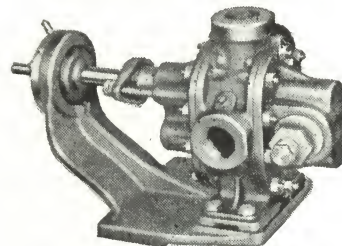
**TRUCK PUMPS**

Fig. 5250. Mfrs. 3600V

Especially designed to fit the cramped space available on modern trucks. It is driven through the drive shaft and universal joints by power take-off. SPIRAL pumping gears. Complete with 'Built-In' relief valve, pump and base. They are quiet in operation and speedy in performance. Power take-off can be furnished, prices and information on request.

Size	G.P.M. At R.P.M.	Suction and Discharge, Inches	Length, Width & Height, Inches	Complete With Pump & Shaft & Base 2 Univ. Joints LIST EACH	
				LIST EACH	LIST
2	40—375	1-1/2	18-3/4x9-1/4x11-5/8	\$64.25	\$82.85
2A	50—445	2	18-3/4x9-1/4x11-5/8	\$67.15	\$86.00
3A	90—560	2	19-1/2x9-1/4x11-5/8	\$75.70	\$94.55

**20% OFF**



**PUMP JACKS—Single and Double Geared****No. 53 Pump Jack—Double Geared**

For buyers who want jacks of extra quality as well as large capacity for operating deep wells. Made with 13x1½ inch crank gears, with a ratio of nearly 6 to 1; pulleys 13x2 in., for belt speed of 675 R. P. M., ¾ H. P. required. The drive pinions are cut steel which are three times as strong and durable as cast-iron pinions.

Two bearings are used for the pulley shaft—one between the pinions and the other next to the driving pulley. Both bearings being parts of the main frame and some distance apart there is no possibility of misalignment and the cramping of the shaft in its bearing is eliminated. The crank shaft is on a level with the belt pulley shaft, bringing the crank gear well out of the way of a pail hung on the spout.

Gears protected. Compression grease cups on all important bearings. Complete with maple pitmans. Shipping wt., crated, 90 lbs.

Pulleys	★ NET EACH
13x2 inch .....	\$7.68
15x3 inch .....	\$9.20
Maximum Lift:	Feet
3 inch Cylinder, 10 inch Stroke.....	96
3 inch Cylinder, 5 inch Stroke.....	192

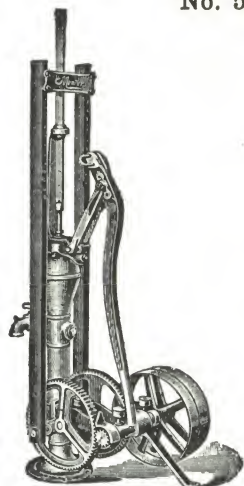


Fig. No. 3164

**No. 3 Jack, Single Back Geared**

Designed to fasten on a vertical post with 4 lag screws. Has 13 inch tight and loose pulleys for 2 inch belt. Three strokes, 5 inch, 7½ inch, 10 inch. Geared 4 to 1. Pumping capacity 40 strokes per minute lifting up to 120 feet on 5 inch stroke with 3 inch cylinder and up to 280 feet on 5 inch stroke with 2 inch cylinder.

Note the liberal length of crank shaft bearing.

Complete with 7 foot pitman and pump attachment; grease cups for pinion pulley and crank shaft, and lag screws. Shipping weight, 60 pounds.

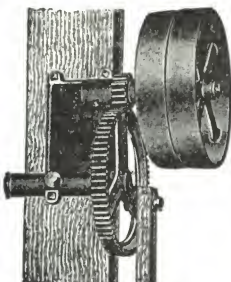


Fig. No. 768

★ NET EACH, \$7.36

**NO. 200-LJ JACK, DOUBLE BACK GEARED**

from any position—on floor, wall, or ceiling. Gear ratio 16 to 1.

Designed for wells as deep as 350 feet. Especially adapted for wells drilled in rock, or where water filters slowly, for the slow action of the pump rod prevents a vacuum in cylinder and jerky motion of pump.

Compact in design and durably built to stand up under severe working conditions. Grease cups are standard equipment.

Where the encircling gear guards are not used, the main frame acts as a gear guard for the intaking side of the gears. Driving shaft

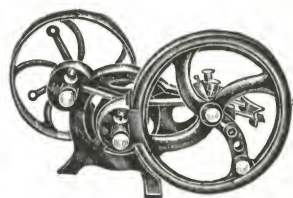


Fig. No. 2815

A double back geared jack with center drive and clutch. Works

**No. 54 Self-Oiling Pump Jack—Double Back Geared**

Gear ratio 15 to 1. Self-oiling—main casting is hollow and serves as an oil chamber. The middle gear distributes oil to shaft bearings.

Cross head clamps to the pitmans and can be adjusted to any height. Pinions are cut from solid steel bars. High speed gear has cut teeth. Crank gears are webbed. All gears are protected.

Fig. 3970M

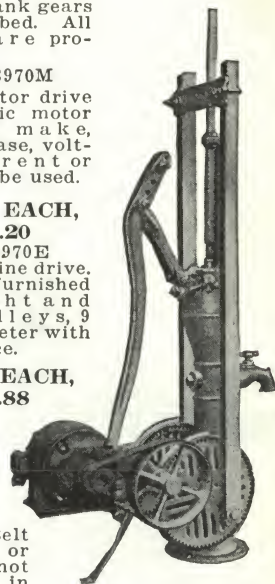
For motor drive an electric motor of any make, speed, phase, voltage, current or size may be used.

★ NET EACH, \$15.20

Fig. 3970E

For engine drive. Can be furnished with tight and loose pulleys, 9 inch diameter with 2 inch face.

★ NET EACH, \$15.88



NOTE. Belt tightener or motor is not included in above prices

**NO. 200-LJ JACK, DOUBLE BACK GEARED**

from any position—on floor, wall, or ceiling. Gear ratio 16 to 1.

Designed for wells as deep as 350 feet. Especially adapted for wells drilled in rock, or where water filters slowly, for the slow action of the pump rod prevents a vacuum in cylinder and jerky motion of pump.

Compact in design and durably built to stand up under severe working conditions. Grease cups are standard equipment.

Where the encircling gear guards are not used, the main frame acts as a gear guard for the intaking side of the gears. Driving shaft

and crank arm are key-seated, and set screwed to the shaft, which eliminates slippage and insures positive alignment of the crank arm with the gear.

A special feature of this jack is the jaw clutch drive. It works particularly well with electric motor drive, although it is designed for engine or motor drive.

No. 200-LJ. Complete with gear guard as illustrated. Lifting capacity, 2 in. cylinder, 250 to 350 feet, stroke 5-7½-10, pulley 13 in., shafts 1½ in. Hardwood pitmans included. Shipping weight, 100 lbs.

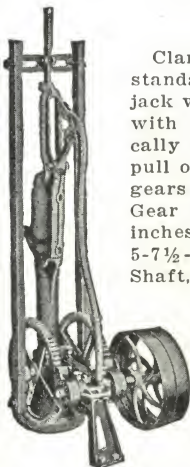
★ NET EACH, \$8.03

**DOUBLE GEARED PUMP JACK  
Clamp Style R-J**

Fig. No. 3309

Clamps the jack firmly to the pump standard. A strong substantially built jack with a lifting capacity up to 200 feet, with a 2 in. cylinder. Gears automatically equalize, so there is always an equal pull on each set of gears. Intersection of gears protected by small gear guards. Gear Ratio, 5 to 1. Lifting Capacity, 2 inches. Cylinder, 150 to 200 feet. Strokes, 5-7½-10 inches. Pulleys, 13x2 inches. Shaft, 1½ inches.

★ NET EACH, \$7.88

**NO. 100-KJ PUMP JACK—Center Drive**

This center-drive jack may be placed in any position—on the floor, wall, ceiling, on a post or simply clamped to the pump standard and it will work more smoothly than the ordinary double geared jack.

Gear reduction 5 to 1. This ratio gives 35 strokes of the pump rod per minute when used with ordinary 1½ H. P. engine.

The single gear and single pulley reduces the friction surfaces nearly one-half.

All jacks are furnished with 3 hard oil cups.

Gears are wide faced and mesh perfectly, transmitting all power of engine or motor.

Front clamp fastens firmly to any style pump standard, whether it be a single or two pipe stand or double cylinder pump.

The jack is adaptable to the peculiarities of any pumping condition or to any style of pump.

Pulley 13x2 in. Stroke 5, 7½ and 10 in. Lifting capacity with 2 in. cylinder is 200 to 250 feet. Has positive drive clutch, no belt to shift. Driving gear is keyed to shaft, like driving arm of steam engine—one gear does the work of two. Complete with hardwood pitmans. Shpg. wt., 85 lbs.

★ NET EACH, \$6.38

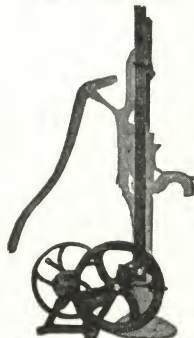


Fig. No. 3170



## STOVER WORM GEAR PUMP JACK

Worm gear type. Completely enclosed and packed in grease. A smooth, silent running, powerful, accident-proof pumping unit. Enclosed gears make unit weather-proof, dust-proof and eliminate all danger of anyone being caught in the gearing. While grease is packed in when jack is shipped, it is necessary to make an occasional examination to see that it always has the proper amount. Stroke is even and steady giving full capacity of the pump.

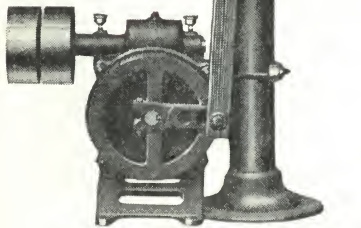
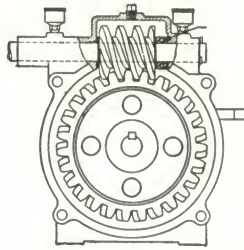


Fig. No. 3326



Sectional view showing the location of the ball bearing end thrust which is an important feature that adds materially to the life and efficiency of the pump jack.

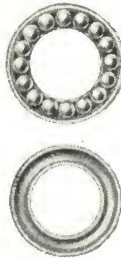


Illustration of the ball-bearing end thrust.

Heavy construction, designed to stand hard service in any kind of weather without any attention.

Style Number  
Drive Used For

Back Geared  
Strokes, Inches  
Pulleys, Inches  
Approx. Ship. Wt.

LIST EACH

18  
Engine  
13 1/2 to 1  
5, 7 1/2, 10  
6 x 2  
90 pounds

\$13.33

18 1/2  
Motor  
13 1/2 to 1  
5, 7 1/2, 10  
12 x 2  
90 pounds

\$13.33

DISCOUNT, Jack Only, No Pump. . . . .25% OFF

## STOVER RUN-IN-OIL PUMP JACK

Gears, pinions, eccentric arms, and bearings, run in a bath of oil constantly.

The surfaces on the two halves of the gear case are machined, supplied with a gasket, and form a leak-proof reservoir.

The side arms are directly under the work or parallel to the pump rod, insuring a direct lift and eliminating side thrust. The stroke upon the arms can be quickly and easily changed by extending or shortening the arms.

The arms on the Nos. 22 and 23 series are channel steel, punched with a series of holes to accommodate different styles of pumps. The cross-head is heavy and is so arranged as to accommodate the natural swing of the pump. The bearings for the pulley and gear shaft are round, die cast and renewable.

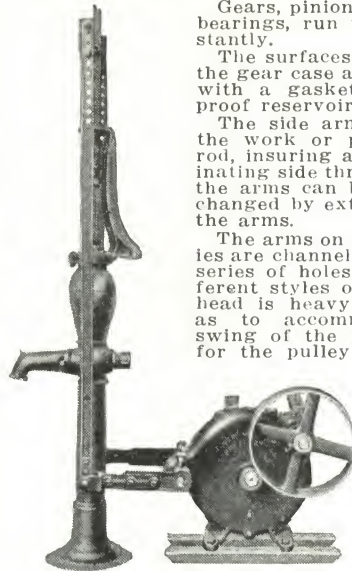


Fig. 4611

Pump Jack prices do not include the pump standard shown on this or the preceding page.

No. 22 is for belt drive with gasoline or other type engines. Medium construction for ordinary work.

No. 23 is for belt drive with gasoline or other type engines. Heavy construction, for very heavy work.

No. 22B is for use with electric motor. Medium construction for ordinary work. Supplied without the motor and belt. Adjustable cast iron base for any make motor.

No. 23B is for use with electric motor. Heavy construction for very heavy work. Supplied without the motor and belt. Adjustable cast iron base for any make motor.

Model No.	22	23	22B	23B
Back Geared	5 1/2 to 1	5 1/2 to 1	5 1/2 to 1	5 1/2 to 1
Strokes, Inches	4, 6, 8	4, 6, 8	4, 6, 8	4, 6, 8
Pulley, Inches	10x2	10x2	20x2	20x2
For Drive	Belt	Belt	Motor	Motor
Construction	Medium	Heavy	Medium	Heavy
LIST EACH	\$24.00	\$30.00	\$32.00	\$38.00

DISCOUNT, Jack Only, No Pump. . . . .25% OFF

## FREEZELESS HYDRANTS

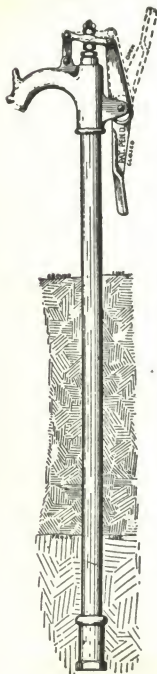
Cannot freeze—so designed that the water cuts off beneath the frost line.

Fig. 2322

For outdoors or where there is danger of freezing and running water is needed the year around. Positive shut off. Handle lift 900 to 1. Goes past center and will stand any pressure. Galvanized pipe for casing. Two waste holes for safety in time of freezing and will drain instantly. Pump rod is one piece and will easily pull out at top for repairing. One adjustment. No set screws to work loose. Best semi-steel head. Steel eccentric. All nuts are bronze. All bronze seat. Special leather valve consists of eleven all chemically treated leather washers, which are alkali and mineral resisting, finished to a perfect fit, for a bronze sleeve. Guide protector prevents stuffing, rust and packing from cutting; also pump rod cannot bend.

## ★ NET PRICES EACH

Length Overall	Length set in ground	For 3/4 inch service, 3/4 inch hose connection	For 1 inch service, 1 inch hose connection
4 1/2 feet	2 feet	\$5.55	\$6.00
5 feet	2 1/2 feet	5.65	6.15
5 1/2 feet	3 feet	5.70	6.25
6 1/2 feet	4 feet	5.85	6.50
7 1/2 feet	5 feet	6.00	6.80
8 1/2 feet	6 feet	6.15	7.05



## IMPROVED HANDY AUTOMATIC STOCK WATERER

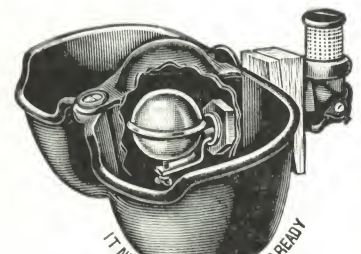


Fig. 4577

An automatic waterer for small as well as large animals; yet, it is impossible for any hog to drink this fountain dry. The amount of water in the pan can be easily regulated by screwing the Brass Ball Float up or down. The flow of water can also be controlled at the valve. For attaching to a tank or barrel, 13 inches long by 6 1/4 inches wide by 4 1/2 inches deep.

★ NET EACH, \$2.25



## GOULD'S DIAPHRAGM SIDE SUCTION PUMPS

Particularly adapted for raising large quantities of water containing mud, drainage, grain or sanitary matter, for lifts under 25 feet. There is no cylinder or piston to wear by the introduction of foreign matter, and the diaphragm can be replaced in an emergency by a piece of canvas or an old coat. The valves carry rubber gaskets which work on inclined iron valve-seats. A strong wrought iron lever goes with every pump. It is reversible so that it can be used vertically or horizontally from either the side or back.

Number of Pump.....	2	3	4
Stroke, Inches.....	3	3	4
Suction, Inches.....	2½	3	4
Capacity per Hour, Gallons.....	1800	3500	6000
LIST EACH.....	\$23.50	\$28.00	\$46.00
DISCOUNT.....	15% OFF		

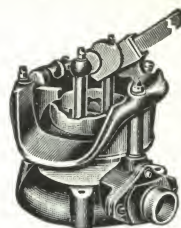


Fig. No. 1223G

## CENTRIFUGAL PUMPS—Standard Side Suction, Horizontal Belt Drive

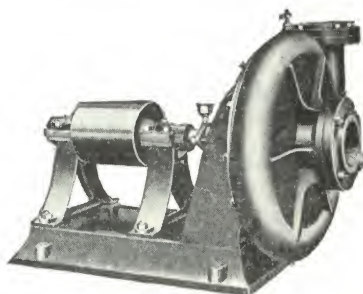


Fig. No. 1902-S

For pumping screened sewage, for mine use, for irrigation, general water supply, or booster service. The case or shell is of the solid type, very heavy, and the runner of large diameter, adapting the pump for slow speed.

The shaft is large and the bearings are generously proportioned, an ample stuffing box and gland being provided. The discharge can be readily adjusted at any angle. All parts are accurately interchangeable and any part can be readily duplicated. We can supply any of these pumps with the

discharge necks increased, so that the discharge opening is the same size as the suction opening, at the price of regular pump, when so ordered.

No. ¾ for elevation up to 30 ft. No. 1, for 40 ft. Other sizes 100 ft.

Tight and Loose Pulleys can be furnished, if desired. Prices on application.

Hand Primer can be furnished. Prices on application.

Pump No.	Economical Capacity Gals. per Min.	Size of Pipe, In.		Size of Pulley, In.		Iron List Each	Iron, Brass Fitted List Extra
		Disch.	Suct.	Diam.	Face.		
¾	10	¾	1	3	2	\$ 26.00	\$ 10.00
1	30	1	1½	4	3	37.00	13.00
1½	70	1½	2	5	5	57.00	25.00
1¾	90	2	2½	6	5	100.00	30.00
2	120	2	3	6	6	128.00	35.00
2½	185	2½	3½	7	6	145.00	38.00
3	265	3	4	7	8	185.00	50.00
3½	360	3½	4½	8	8	189.00	50.00
4	470	4	5	10	8	234.00	70.00
5	735	5	6	10	10	337.00	95.00
6	1,060	6	8	14	12	562.00	138.00
8	2,000	8	10	20	12	635.00	163.00
10	3,000	10	12	24	12	1,058.00	313.00
12	4,300	12	15	30	14	1,170.00	350.00

DISCOUNT.....40% OFF

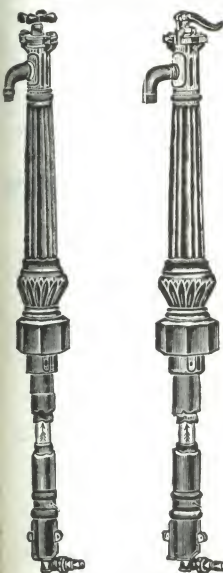


Fig. 909-1 Fig. 909-7

## TOTAL ECLIPSE HYDRANTS AND STREET WASHERS

Especially adapted for garage, filling station, general yard or farm use.

Will not freeze, positive automatic drain. Closes against the pressure. No reaction. Valve and working parts of brass. Removal of nozzle and top cap permits withdrawal of interior parts for replacement with ease and without disturbing connection to supply pipe. Sand cup (valve protector) furnished on each hydrant.

Specify if full ¾, 1 or 1 ¼-inch inlet connection is desired.

1 ½ foot list applies on any shorter length.

¾-inch hydrant or street washer has combination ½ or ¾-inch connection. 1-inch hydrant or street washer has combination 1 or 1 ¼-inch connection. 1 ¼-inch hydrant or street washer has combination 1 or 1 ¼-inch connection.

Fig. 909-1. Hydrant. Compression Type. Non-Freezing.

Fig. 909-7. Hydrant. Self-Closing Type. Non-Freezing.

Fig. 910. Street Washer. Compression Type. Non-Freezing.

Order by Figure Number, specify size of hydrant or washer and depth to be set in ground.

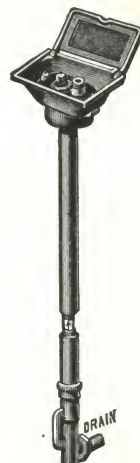


Fig. 910 Street Washer

### SIZES AND LIST PRICES.

To Set in Ground	Fig. 909-1 Compression Hydrant			909-7 Self-Closing Hydrant		Fig. 910 Street Washer		
	¾ inch	1 inch	1 ¼ inch	¾ inch	1 inch	¾ inch	1 inch	1 ¼ inch
1½ feet	\$ 9.80	\$13.00	\$20.00	\$10.80	\$14.00	\$ 6.60	\$ 9.85	\$18.35
2 feet	10.10	13.50	20.50	11.10	14.50	6.85	10.25	18.75
3 feet	10.60	14.30	21.30	11.60	15.30	7.35	11.05	19.55
4 feet	11.00	15.10	22.10	12.00	16.10	7.75	11.85	20.35
5 feet	11.50	15.90	22.90	12.50	16.90	8.25	12.65	21.15
6 feet	12.10	16.70	23.70	13.10	17.70	8.85	13.45	21.95
8 feet	13.50	18.30	25.30	14.50	19.30	10.25	15.05	23.55
10 feet	16.00	19.90	26.90	17.00	20.90	12.75	16.65	25.15
Discounts...	50% OFF	50% OFF	45% OFF	50% OFF	50% OFF	40% OFF	40% OFF	40% OFF



## ROPER AUTOMATIC ELECTRIC ROTARY GEAR TYPE SHALLOW WELL WATER SYSTEMS

**\$38.75**  
**6 GALLON SYSTEM**

For cisterns and shallow wells, where the vertical distance from the pump suction opening to water level is not over 22 feet, free from sand and silt. Rotary gear type pump that is built on the simplest of pumping principles consisting of merely two pumping gears assembled in a pump case. Stainless steel, spiral tooth gears, rust-proof and operate quietly. Solid cast iron common bed plate. Develops a very good suction lift. Solid cast bronze pumping head. Automatic in operation, when the pressure goes down to 20 pounds a circuit breaker automatically starts the unit and when the pressure reaches 35 pounds, the unit stops itself.

Heavy gauge galvanized steel tank, carefully welded and tested to 150 pounds hydrostatic pressure. Built-in strainer. Air valve

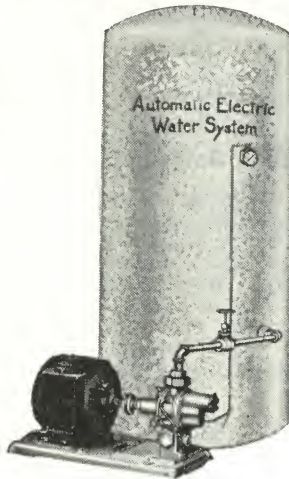


Fig. 4312A.  
Mfrs. 880TA—42 Gallon  
Mfrs. 881TA—42 Gallon

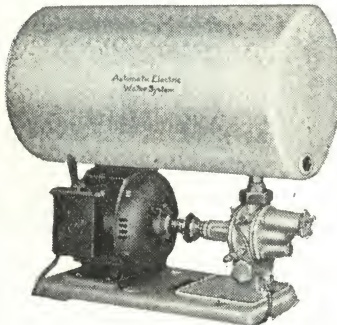


Fig. 4312B.  
Mfrs. 880—6 Gallon  
Mfrs. 881—10 Gallon

supplies the pressure tank with air. Water relief valve prevents excessive pressure in tank. Built-in check valve, prevents water running back from tank. Stuffing gland is adjustable and spring loaded to prevent leakage. Improved motor; heavy duty, constant speed, repulsion - induction type, powerful, moisture proof. **SPECIFY** 110 or 220 volt, whether A.C., 60 cycle, single phase, or D.C., also 32 volt. Connected direct to motor by flexible coupling. Can be furnished with gasoline engine.

### 250 GALLONS EACH HOUR

Mfrs. No.	Tank Gals.	Floor Space		Suction, Inch	Dis- chg. Inch	Shpg. Wt. Lbs.	★
		W.	Lt.				
COMPLETE SYSTEM—							
1/4 H. P. ELECTRIC MOTOR							
880	6	10-1/4	23-1/4	18-3/8	3/4	1/2	74 \$3
880TA	42	21	38	48	3/4	1/2	153 \$5
PUMP HEAD ONLY							
880H	None	5	7-1/4	6	3/4	1/2	11 \$1
PUMP HEAD, 1/4 H. P. ELECTRIC MOTOR							
COUPLING AND BASE							
880LTF	None	11	21	9	3/4	1/2	47 \$3
PUMP HEAD, 1/4 H. P. ELECTRIC MOTOR							
PRESSURE SWITCH, COUPLING, BASE, GAUGE, AND FITTINGS							
880LT	None	11	18-1/4	18	3/4	1/2	56 \$3

### 500 GALLONS EACH HOUR

Mfrs. No.	Tank Gals.	Floor Space Inches			Suc- tion, Inch	Dis- chg. Inch	Shgp. Wt. ★ Lbs. E
		W.	L.	Ht.			
<b>COMPLETE SYSTEM—</b>							
<b>1/2 H. P. ELECTRIC MOTOR</b>							
881	10	10-1/4	35-1/4	18-3/8	1	3/4	115 \$7
881TA	42	23	38	48	1	3/4	173 \$9
<b>PUMP HEAD ONLY</b>							
881H	None	5	8-1/4	6	1	3/4	13 \$1
<b>PUMP HEAD, 1/2 H. P. ELECTRIC MOTOR</b>							
<b>COUPLING AND BASE</b>							
881LTF	None	12	23-1/2	9	1	3/4	61 \$6
<b>PUMP HEAD, 1/2 H. P. ELECTRIC MOTOR</b>							
<b>PRESSURE SWITCH, COUPLING, BASE, GAUGE</b>							
<b>AND FITTINGS</b>							
881LT	None	12	23-1/2	18	1	3/4	73 \$7
<b>COMPLETE SYSTEM WITH GASOLINE ENGINE</b>							
Sturdy single cylinder, air cooled, 4 cycle gasoline engine. Quick start carburetor of adjustable type. High tension magneto built into the flywheel gives a strong spark for positive firing. Centrifugal flywheel governor adjustable. Convenient foot starter. This system is semi-automatic in that it must be started, but will stop itself. Complete with pump head, 1/2 Horse power gasoline engine, bed plate, circuit breaker, pressure gauge, 300 gallon storage tank, air volume control, all necessary fittings between pump and tank. 30 inches wide, 44 inches long, 96 inches high. Shipping weight, 600 pounds.							
Mfrs. 880ETA. 250 GALLONS EACH HOUR. 3/4 inch inlet, 1/2 inch outlet. ★ NET COMPLETE, \$135							
Mfrs. 881ETA. 500 GALLONS EACH HOUR. 1 inch inlet, 3/4 inch outlet. ★ NET COMPLETE, \$166							

## NEW!

## Roper SHALLOW WELL Water System

## NEW

250 GALLONS EACH HOUR—10 GALLON TANK

**For pumping water where depth to lowest level is 22 feet or less.**

**"SANI-TANK"**—the first and only storage tank entirely porcelain enameled inside and out. 10 gallon tank. Absolutely sanitary. Easily removable. Can be washed out like a milk can.

**"UNI-VALVE" PLATE**—Porcelain enameled—Contains all valves. Non-sticking—Non-corroding.

**"DIRECT-DRIVE"**—no belts—no pulleys—no chains. Nowhere else can you get a "Direct-Drive" Piston unit at this price.

**"BUILT-IN" ELECTRIC MOTOR**, 1/4 horse power assures perfect alignment.

**COMPLETELY ENCLOSED**—all working parts run in oil. Pressure switch enclosed in a cast iron housing. No exposed wiring.

**3 POINT CONTACT** strategically placed for most rigid support.

**SILENT OPERATION.**

**EASE OF INSTALLATION**—all parts easily accessible.

Porcelain enameled valve plate. The cylinder can be easily replaced. The stuffed box is spring loaded and self adjusting. Oil retainer seal. Brass cross head. Non-Metallic, noiseless, driving gear. The pressure switch and all wiring are enclosed. Combination relief valve and drain cock. Brass piston rod. Steel wrist pin is hardened and ground. Steel drive shaft, hardened and ground. Oversize eccentric bearing. Bronze bearings.

250 gallons capacity each hour under 40 lbs. pressure at 21 foot suction lift. Free Flow 275 gallons each hour. 3/4 inch inlet, 1/2 inch outlet.

16 inches wide, 18 inches long, 30 inches high. Shipping weight, 125 pounds.

★ NET, 10 GALLON SYSTEM

**\$53.75**

Prices on request for this unit with 42 gallon or 300 gallon tank.

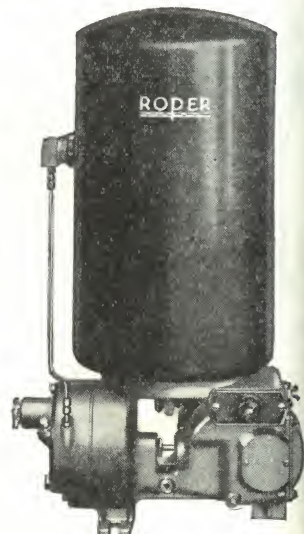


Fig. 4861



## Roper DEEP WELL Water Systems

FOR PUMPING WATER WHERE DEPTH TO  
LOWEST WATER LEVEL IS 220 FEET OR LESS.

Especially designed for pumping a sufficient supply of water to fill the requirements of Live Stock farms, Suburban Homes, Country Estates, Hotels, Industrial Plants, etc., wherever depth to lowest water level is 220 feet or less. May be used as working head only or with a pressure tank.

**STORAGE TANK:** Heavy gauge galvanized steel, tested against 150 pounds hydrostatic pressure.

**ELECTRIC MOTOR:** Heavy duty, constant speed, **re-  
duction-induction** type. Economical to operate. Moisture  
proof. Either 110-220 volt, 60 cycle, single phase, A.C.;  
or 110-220 volt D.C.; or 32 volt D.C.

**ELECTRIC PRESSURE SWITCH:** (Two pole type). Au-  
tomatically starts motor at 25 pounds pressure and stops it  
at 40 pounds. Gives overload protection. Rubber dia-  
gram eliminates crystallization.

**CIRCUIT BREAKER:** Automatically stops engine when  
pressure in tank reaches 40 pounds.

**AIR VOLUME CONTROL:** Accurately regulates air sup-  
ply in tank, keeping amount of air and water balanced—  
prevents "water logging." (Regularly furnished on all  
units with 42 gallon tanks or larger.)

**PRESSURE GAUGE** (100 pound): Indicates pressure in  
tank (Regularly furnished on all outfits with 42 gallon  
tanks or larger.)

**WATER RELIEF VALVE:** Prevents excessive pressure  
in tank.

**GASOLINE ENGINE:** Sturdy single cylinder, air cooled,  
cycle type. Quick start carburetor of adjustable valve  
type. High tension magneto built into the flywheel, gives  
strong spark for positive firing. Centrifugal flywheel  
governor adjustable. Convenient starter.

**SPECIFICATIONS:** Power base is adjustable for dif-  
ferent motors and belt take-up. Water and oil proof. V-  
belt. Large size bearings. Drive Pulley is mounted on  
end of crankcase plate takes belt pull off pinion shaft.  
Tank Case Back Plate is easy to remove. Driving Gears  
are perfectly meshed and silent. Gear Ratio is 7 to 1.  
1 1/2 inch Stroke—50 strokes each minute. Short Cross Head,  
rigidly constructed. Brass Cylinder. Brass Differential  
hanger. The Oil Reservoir supplies constant lubrication.  
Inlet head is outside of crankcase, oil cannot get into  
water. The inlet opening permits removal of the cylinder  
without disturbing drop pipe, pump head or outlet head.

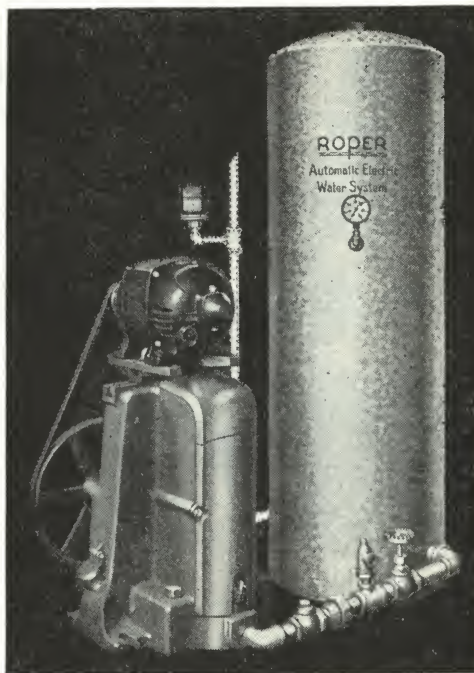


Fig. 4862

Model	Inlet Inches	Outlet Inches	H. P. Motor	Tank Gallons	Width Inches	Length Inches	Height Inches	Shpg. Wt. Lbs.	★ NET EACH
<b>COMPLETE SYSTEM WITH ELECTRIC MOTOR</b>									
92-1/2 MTA	3	1-1/4	1/2	42	20	50	48	337	\$109.69
92-3/4 MTA	3	1-1/4	3/4	42	20	50	48	347	\$120.00
92-1 MTA	3	1-1/4	1	42	20	50	48	357	\$141.25
<b>COMPLETE SYSTEM WITH GASOLINE ENGINE</b>									
92-1/2 ETA	3	1-1/4	1/2	300	40	70	96	765	\$181.35
92-1 ETA	3	1-1/4	1	300	40	70	96	779	\$220.30
<b>PUMP HEAD ONLY</b>									
92M	3	1-1/4	None	None	16	16	20-1/2	160	\$52.60
<b>PUMP HEAD WITH ELECTRIC MOTOR</b>									
92-1/2M	3	1-1/4	1/2	None	16	16	28-1/4	220	\$82.60
92-3/4M	3	1-1/4	3/4	None	16	16	29	230	\$92.00
92-1 M	3	1-1/4	1	None	16	16	30	240	\$113.75
<b>PUMP HEAD WITH GASOLINE ENGINE</b>									
92-1/2E	3	1-1/4	1/2	None	18	20	33	220	\$98.75
92-1 E	3	1-1/4	1	None	18	18	36	264	\$138.10

### SELECTION CHART OF 1192MTA DEEP WELL SYSTEMS

This chart will enable anyone to quickly select the proper system for any installation where depth to lowest water level is 220 ft. or less at 40 lbs. tank pressure. (For each additional pound pressure deduct 2.3 feet from depth to water.)

Model	Horse Power	Cylinder Inches	Drop Pipe	Min. Well Casing	Gallons Hour	Horse Power	Cylinder Inches	Drop Pipe	Min. Well Casing	Gallons Hour	Horse Power	Cylinder Inches	Drop Pipe	Min. Well Casing
<b>75 Feet To Lowest Water Level</b>														
180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3
285	3/4	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2
360	3/4	2-1/2x16	1-1/4	4	360	3/4	2-1/2x16	1-1/4	4	360	1	2-1/2x16	1-1/4	4
440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4
525	1	3 x16	1-1/4	4-1/2	525	1	3 x16	1-1/4	4-1/2	525	1	3 x16	1-1/4	4-1/2
<b>100 Feet To Lowest Water Level</b>														
180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3	180	3/4	1-13/16x18	2	3
285	3/4	2-1/4x18	2-1/2	3-1/2	285	3/4	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2
360	3/4	2-1/2x16	1-1/4	4	360	3/4	2-1/2x16	1-1/4	4	360	1	2-1/2x16	1-1/4	4
440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4
<b>125 Feet To Lowest Water Level</b>														
180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3	180	3/4	1-13/16x18	2	3
285	3/4	2-1/4x18	2-1/2	3-1/2	285	3/4	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2
360	3/4	2-1/2x16	1-1/4	4	360	3/4	2-1/2x16	1-1/4	4	360	1	2-1/2x16	1-1/4	4
440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4
<b>150 Feet To Lowest Water Level</b>														
180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3	180	3/4	1-13/16x18	2	3
285	3/4	2-1/4x18	2-1/2	3-1/2	285	3/4	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2
360	3/4	2-1/2x16	1-1/4	4	360	3/4	2-1/2x16	1-1/4	4	360	1	2-1/2x16	1-1/4	4
440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4
<b>200 Feet To Lowest Water Level</b>														
180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3	180	3/4	1-13/16x18	2	3
285	3/4	2-1/4x18	2-1/2	3-1/2	285	3/4	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2
360	3/4	2-1/2x16	1-1/4	4	360	3/4	2-1/2x16	1-1/4	4	360	1	2-1/2x16	1-1/4	4
440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4
<b>220 Feet To Lowest Water Level</b>														
180	1/2	1-13/16x18	2	3	180	1/2	1-13/16x18	2	3	180	3/4	1-13/16x18	2	3
285	3/4	2-1/4x18	2-1/2	3-1/2	285	3/4	2-1/4x18	2-1/2	3-1/2	285	1	2-1/4x18	2-1/2	3-1/2
360	3/4	2-1/2x16	1-1/4	4	360	3/4	2-1/2x16	1-1/4	4	360	1	2-1/2x16	1-1/4	4
440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4	440	1	2-3/4x18	3	4

### WELL SYSTEM ACCESSORIES

**SET LENGTH.** Used to protect against freezing  
the pump and suction and discharge pipes if the deep  
well is some distance from the house. Parts with run-  
ning water should be below the frost line, usually  
feet.

Foot Set Length Ordered With Outfit .. ★ NET, \$4.25  
Foot Set Length Ordered Separately .. ★ NET, \$11.50  
Each Additional Foot Over 4 Feet ..... ★ NET, \$1.50

**FRESH WATER VALVE.** For deep well systems.  
If fresh water drinking service is desired, install this  
Fresh Water Valve. Tapped for 1/2 inch pipe drink-  
ing water service line. Pressure switch, piping or  
faucet are not furnished.

★ NET EACH, \$5.80



## UNIVERSAL BARREL PUMP

Rapidly handles oils, light or heavy, gasoline, kerosene, alcohol, etc. Fits all depths of drums and drum openings. Empties the drum to the very bottom.

All metal. Dripless. Leak-proof. Lockable. Threaded to fit 1½ and 2 inch drum openings and unique sliding intake construction enables the pump to drain 15 to 60 gallon capacity drums with equal ease. Malleable handle, arranged for locking. Discharge nozzle has special horn for holding bailed containers. Dispenses approximately one pint per stroke.

LIST EACH, \$8.00

DISCOUNT ..... 20% OFF

## HAND ROTARY TRANSFER PUMPS

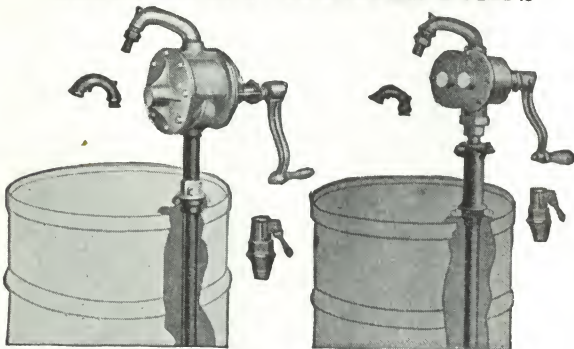


Fig. 1069EA

42 Inch suction pipe, screwing into bottom of case, permitting 1 inch suction. Bung screw is affixed with set screw to suction pipe for screwing into standard size 1½ and 2 inch boss in steel drum. 1¼ by 1 inch discharge spout, fitting into 1¼ inch discharge opening at top of case. Hose coupling with 1 inch corrugated threading to screwing into rubber hose (hose not furnished). Barrel hook tapped for 1 inch to screw into female hose connection. Barrel hook has ¾ inch discharge opening. All iron construction. Picks up prime easily. Positive suction lift. Clear cold water capacity at 100 revolutions a minute at no foot head is 12 gallons. Spout can be turned at any angle desired.

**1069EA.** Size 1. Vane-Type. Used for handling gasoline, kerosene, light oils, turpentine, naphtha and other thin liquids from steel drums, tank wagons, portable tanks, etc.

LIST EACH, \$17.10

**3402T.** Size 1. Long bung screw for 1½ and 2 inch boss on steel drums. Used for handling heavy oils, fuel oils, molasses, paints, lacquer and other thick liquids.

LIST EACH, \$17.70

DISCOUNT ..... 20% OFF

## SLEEVE BEARING PRESSURE PUMP

FOR HYDRAULIC POWER TRANSMISSION

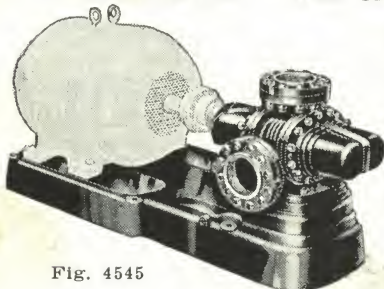


Fig. 4545

For pressures up to 100 pounds. High grade, high lead bronze sleeve bearings. Bearings are constantly lubricated by liquid being pumped. Pump head is two steel herring-bone gears pressed onto steel shafts. Carefully machined iron case. Write for prices of larger sizes up to 300 gallon each minute.

Mfrs. No.	Suction Fitted For Inches	Discharge Fitted For Inches	Oil Capacity Gal. Each Min.		LIST LESS MOTOR
			1140 RPM	1750 RPM	
99901M	¾	¾	....	1.15	\$30.00
99904M	¾	¾	....	6.38	\$37.25
99910M	1	¾	....	15.7	\$52.20
99920M	1¼	1	....	31.4	\$60.35
99930M	1¼	1¼	30.7	....	\$76.45
99940M	1½	1½	41.1	....	\$93.15
99950M	1½	1½	59.6	....	\$119.95
99960M	2	2	65.3	....	\$146.65
99980M	2½	2	81.8	....	\$226.85

**SPECIFY** pounds pressure, liquid to be handled, intermittent, or continuous service, and proper size bed plate will be furnished.

DISCOUNT ..... 20% OFF

## ROTARY GEARED CIRCULATING PUMPS WITH AUTOMATIC RELIEF VALVE

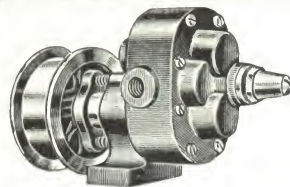


Fig. 1850T  
ONE WAY

Designed for use on metal working machines which operate only in one direction. The distinct feature on this pump is the automatic relief valve. It is an integral part of the face plate. With this construction, supply of coolant is entirely at the will of the machine operator and may be shut off completely at discharge opening without stopping the pump.

Throws heavy steady streams of coolant absolutely free from pulsation. When properly installed, will pump water, oil or compound equally well and will not lose its prime. It operates at low speed, and operates against high pressure successfully.

No. of Pump.....	0	00	000	0000
Cap., gals., at 300 R.P.M. 12	5½	2½	13	13
Cap., gals., at 400 R.P.M. 16	7½	3½	2½	2½
Cap., gals., at 500 R.P.M. 20	9½	4½	2½	2½
Suction Discharge, In....	1	¾	1½	1½
Pulley Size, In.....	5x1¼	3½x1¼	3½x1¼	3½x1¼
Size Drive Shaft, In....	¾	¾	¾	¾
Overall Dimensions..	5½x11½	4¾x9¾	3¾x9½	2¾x8½
LIST, With Pulley..	\$22.75	\$20.00	\$18.55	\$15.5
LIST, No Pulley....	\$20.95	\$18.40	\$17.05	\$14.2

DISCOUNT ..... 20% OFF

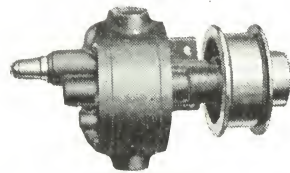


Fig. 5251  
TWO-WAY

**TWO-WAY.** It automatically reverses with the machine. Designed for operation on reversible machine tools. For circulating oil, water or compound or machine tools. Supplies the 'life blood' to the cutting edges. With SPIRAL pumping gears. Lift 25 feet and will operate against 100 pounds pressure. Has 'Built In' relief valve; drive side plate cast with extended bearing for drive pulley, to eliminate belt pull strain on shaft; adjustable stuffing box; flanged pulley Standard fitted construction. Can be furnished bronze fitted or all bronze (prices on request) where the iron fitted pump will be injured when certain liquids are pumped.

Size No.	0	00	000	0000
G.P.M., at 400 R.P.M.	16	6-3/4	3-1/2	2-1/2
Suction and Discharge	1	3/4	1/2	3/8
Length, Inches	13-1/16	11-13/16	9-3/4	9-1/4
Width, Inches	7-7/8	7-7/8	5-1/16	5-1/16
Height, Inches	8-3/4	8-3/4	5-1/2	5-7/16
Pulley Size, Inches	5x1-1/2	5x1-1/2	3-1/2x1-1/4	3-1/2x1-1/4
Approx. Spg. Wt., Lbs.	53	34	19	1
LIST, With Pulley	\$32.70	\$28.45	\$23.00	\$20.0
LIST, Without Pulley	\$30.55	\$26.85	\$21.45	\$18.4

DISCOUNT ..... 20% OFF

## BOILER TEST PUMP

Fig. 770

Double-acting. Substantial. For pumping up to 500 pounds pressure. Brass piston (packed). Brass piston rod. Forged connections. Diameter of piston, 2 inches. Length of stroke, 5 inches. Suction pipe, 1 inch. Discharge pipe, ¾ inch. Weight, 60 pounds.

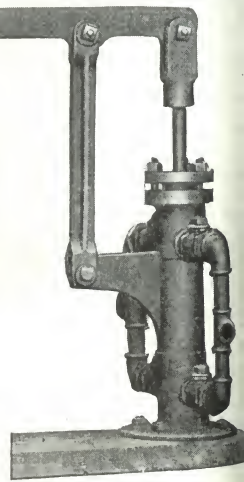
LIST EACH, \$45.00

## IRON CASE GAUGE

With 5 inch dial furnished extra.

LIST EACH, \$4.20

PRICE ..... LIST NET





### POWER ROTARY FORCE PUMP

Used for water supply and general circulating purposes in factories, public buildings, country homes, ice and ice cream plants, textile works, chemical plants, laundries, by road builders, on farms, etc.

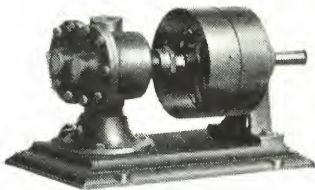


Fig. 120F

Pump will lift liquid 25 feet and force to an elevation of 150 feet (65 pounds pressure). Arranged with tight and loose pulleys for belt drive. Heavy cast-iron construction. Long life. Nominal clear cold water capacity at 200 revolutions a minute at no foot head; size 1, 24 gallons; size 3, 40 gallons; size 5, 70 gallons. With spout. Pump has range of from 200 to 300 revolutions a minute. (200 R. P. M. is recommended.) The capacity is directly proportional to the speed. Sizes 1 and 3 have 1 1/4 inch diameter shafts. Size 5 has 1 1/2 inch diameter shaft. A check of foot valve is recommended where the lift is over 15 feet.

Size No.	Suction Fitted For, Inches	Dis-charge Fitted For, Inches	Dis-charge at Spout, Inches
1	1-1/4	1	1
3	1-1/2	1-1/4	1-1/4
5	2	2	2

Size No.	Size Pulley, Inches	Floor Space, Inches	Appr. Wt., Lbs.	LIST EACH
1	10x3	11 1/4 x 21 1/2	82	\$21.45
3	10x3	12 1/4 x 23	102	\$25.85
5	12x3 1/2	14 1/2 x 29 3/4	165	\$52.50

### POWER ROTARY FORCE PUMP

For General Use. With Double Out-board Bearings. Used for Handling All Kinds of Liquids.

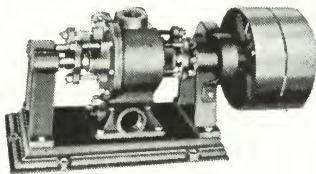


Fig. 121T. Mfrs. 44F

Will lift vertically 25 feet and force to an elevation of 250 feet (100 pounds pressure). Ratio of speed is 100 to 300 revolutions a minute. (200 R. P. M. is recommended.) With tight and loose overhung pulleys and double out-board bearings. Nominal clear cold water capacity at 200 revolutions a minute at no foot head; size 1, 24 gallons; size 3, 40 gallons; size 5, and 70 gallons. Reinforced cast iron construction. Built to give lifetime of satisfactory service. A check valve or foot valve is recommended where lift is over 15 feet.

Size No.	Suction Fitted For, Inches	Dis-charge at Spout, Inches	Size Pulley, Inches
1	1-1/4	1	10x3
3	1-1/2	1-1/4	10x3
5	2	2	12x3-1/2

Size No.	Approx. Weight, Pounds	Floor Space, Inches	LIST EACH
1	108	12-1/4x28-3/8	\$39.30
3	135	12-5/8x28-3/8	\$52.00
5	200	14-3/4x31-3/4	\$77.20

### SINGLE UNIT DRIVEN PUMPING SYSTEMS

For Bulk Station, Refinery, or General Service. Pump will handle any liquid in a fluid state possessing lubricating qualities such as gasoline, petroleum products, various oils, linseed, cotton seed, castor oils, lacquer, lacquer thinner, soap, etc.

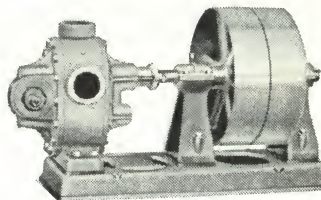


Fig. 3600. Belt Driven

For handling gasoline, lubricants and general service where power is already present in the nature of a line shaft or other types of drive. Double bearings. Tight and loose pulleys. Size of pulley: Size 3, 12 by 3 inches; sizes 5 and 6, 16 by 4 inches. A check valve or foot valve is recommended where the lift is over 15 feet. Sizes 5 and 6 are regularly furnished to operate at 300 revolutions a minute.

Size No.	Suction and Discharge Openings	Cold Water Capacity at no foot head, G. P. M.	Capacity R. P. M.
2	1 1/2	40	375
3	2	75	445
3A	2	90	560
5	3	135	350
6	4	215	350

Size No.	Approx. Weight, Pounds	Floor Space, Inches	LIST EACH
2	235	11x22	\$60.00
3	250	11x24 1/2	\$72.85
3A	250	11x24 1/2	\$72.85
5	320	16x35 1/2	\$87.15
6	360	16x35 1/2	\$181.40

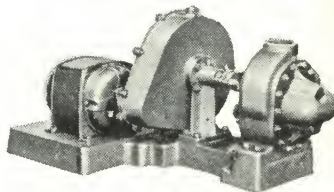


Fig. 3600M. Motor Driven

Furnished less motor. A 1750 R. P. M. motor will give speed of pump of 300 to 375 R. P. M. When used with 1150 R. P. M. motor, pump has speed of from 200 to 300 R. P. M. If motor is desired, prices will be furnished on application; specify whether current is direct or alternating. If direct, give voltage; if alternating give voltage, cycle and phase. If ordered less motor, specify make and frame so pinion can be bored to correct size motor shaft. A check valve or foot valve is recommended where the lift is over 15 feet.

Size No.	Suction and Discharge Openings	Cold Water Capacity at no foot head, G. P. M.	Capacity R. P. M.
2	1 1/2	40	375
3	2	75	445
3A	2	90	560
5	3	135	350
6	4	215	350

Size No.	Approx. Weight, Less Motor	Floor Space, Inches	Less Motor LIST EACH
2	328	23 1/4 x 34	\$77.15
3	340	23 1/4 x 36 5/8	\$104.30
3A	340	23 1/4 x 36 5/8	\$110.00
5	438	25 1/2 x 42	\$118.80
6	520	24 x 38	\$255.70

### ROTARY PUMP FOR GASOLINE

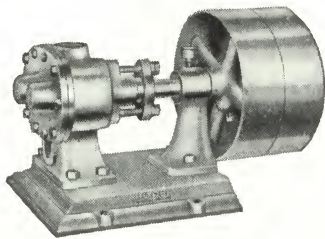


Fig. 1805JA

With special machining and adjusting for gasoline. Durable cast-iron construction. Pump case cast integral with suction base. No suction line leakage. Nominal clear cold water capacity at 200 revolutions a minute, 24 gallons a minute. Built for duty under pressure, will lift 25 feet and force to an elevation of 150 feet (65 pounds pressure). Delivers steady continuous flow of liquid free from pulsation. A check or foot valve is recommended when the lift is over 15 feet.

Suction fitted for 1 1/4 inches

Discharge fitted for 1 1/4 inches.

10 by 3 inch pulleys, tight and loose.

Approximate shipping weight, 78 pounds. Floor space required, 11 1/2 by 20 inches.

LIST EACH, \$31.30

DISCOUNT

20% OFF



# BLACKMER ROTARY PUMPS

## BLACKMER ROTARY PUMPS

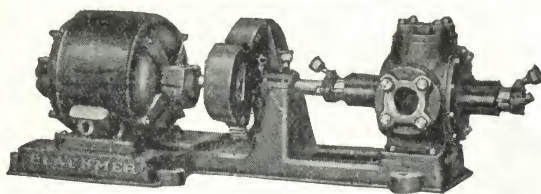


Fig. 5192  
SINGLE ELECTRIC UNIT

These well known pumps are of positive pressure and discharge, and include Blackmer bucket design with automatic-take-up-for-wear. Low maintenance cost is assured by the inexpensiveness of the buckets and their ease of replacement. Require no priming, and will lift 27 feet vertical. Pressure up to 75 pounds. Gas, steam engine or motor may be furnished upon request. Pumps may be furnished also in the lined type or new integrated type with built in bypass, pressure relief valve and strainer; also with steam jacketed heads. All iron units have blind head, while Iron Bronze Fitted and All Bronze, also lined type, have two glands which are recommended. Two gland all iron units can be furnished at the same price as the Iron Bronze Fitted.

It is especially desirable that the type of liquid to be pumped be given when ordering that proper unit may be furnished. Specify whether intake is to be on right side (illustrated) or left side of pump.

T—Tapped connections. F—Flanged connections.

### LIST EACH PUMP

Pump No.	GPM Free Discharge	Max. Pres. Lbs. to Sq. Inch	Rated RPM	Pipe Size Inches	Iron Fitted	Iron Bronze	All Bronze
PA-20	20	75	900	1-T	\$55.10	\$59.00	\$88.60
PA-50	50	75	575	1-1/2-2-T	\$87.30	\$95.20	\$141.20
PA-100	100	75	400	2-2-1/2-3-F	\$100.80	\$129.30	\$260.50
PA-200	200	75	300	3-3-1/2-4-F	\$252.30	\$268.00	\$591.90

Fig. 5193

### LINED SINGLE ELECTRIC UNIT

Lined type is equipped with liner (pump facing) that is easily removed for replacement. Particularly advisable to use a liner wherever there may be any abrasives in the fluid.

### LIST EACH PUMP

Pump No.	GPM Free Discharge	Max. Pres. Lbs. to Sq. Inch	Rated RPM	Pipe Size Inches	Iron Lined	Iron Bronze Lined	Bronze Lined
PA-20-L	20	900	75	1-T	\$65.80	\$86.80	\$98.90
PA-50-L	50	575	75	2-T	\$122.40	\$147.60	\$178.90
PA-100-L	100	400	75	2-2-1/2-3-F	\$177.80	\$268.50	\$355.10
PA-200-L	200	300	75	3-3-1/2-4-F	\$315.60	\$495.50	\$682.00
PA-300-L	320	175	75	5-F	\$588.10	\$1088.50	.....
PA-400-L	400	220	50	5-F	\$588.10	\$1088.00	.....
PA-500-L	550	150	75	6-F	\$1195.60	.....	.....
PA-700-L	700	200	50	6-F	\$1195.60	.....	.....

Fig. 5194

### BELTED PUMP UNIT

The standard belt driven pump is furnished with tight and loose pulleys and belt shifter—belt shifters being standard on all sizes up to and including PA-100. By reducing the speed of the pumps the capacities may be reduced to give a range of from 5 to 700 Gallons Per Minute. Pumps may also be furnished in the lined type. All Iron units have blind head, while Iron Bronze Fitted, All Bronze and Lined Type have two glands, which are recommended. Two gland all iron units can be furnished at the same price as Iron Bronze Fitted. Will lift 27 feet. Pressure up to 75 pounds.

### LIST EACH PUMP

Pump No.	Rated GPM	Pipe Size Inch	Pulley Size Inch	All Iron	Iron Bronze Fitted	All Bronze
PA-20	20	1-T	4x2	\$45.80	\$47.10	\$75.60
PA-50	50	2-T	8x3	\$59.20	\$69.30	\$118.00
PA-100	100	2-2-1/2-3-F	10x4	\$95.20	\$109.20	\$231.50
PA-200	200	3-3-1/2-4-F	14x6	\$189.40	\$215.30	\$551.50

Fig. 5195

### LINED—BELTED PUMP UNIT

### LIST EACH PUMP

Pump No.	Rated GPM	Pulley Size Inch	Pipe Size Inch	Iron Lined	Iron Bronze Lined	Bronze Lined
PA-20-L	20	4x2	1-T	\$52.90	\$73.80	\$85.40
PA-50-L	50	8x3	2-T	\$98.30	\$130.10	\$167.90
PA-100-L	100	10x4	2-2-1/2-3-F	\$161.60	\$250.00	\$325.00
PA-200-L	200	14x6	3-3-1/2-4-F	\$266.20	\$426.60	\$643.40
PA-300-L	320	30x7	5-F	\$598.60	On	On
PA-400-L	400	36x10	5-F	\$598.60	Request	Request
PA-500-L	550	.....	6-F	\$1216.00	On	On
PA-700-L	700	.....	6-F	\$1216.00	Request	Request

### DISCOUNT

## BLACKMER HAND PUMPS

The Blackmer bucket design is also responsible for the ability of these hand pumps to make high suction lifts and operate with the least amount of energy. Will lift 23 feet.

Fig. 5199  
Mfrs. PA-404BB

Big Brother Hand Pump. Designed for transferring gasoline or heavier products in drums or in bulk. Connections 1-1/2 and 2 inch on same bung, 8 foot metal lined hose, bronze buckets and bronze nozzle. No back turning of crank—no priming—will lift 23 feet. 1 inch connections. 10 G.P.M. capacity. Furnished complete as shown.

Iron Bronze Fitted.

LIST EACH, \$21.60

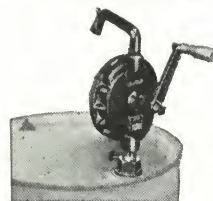


Fig. 5196. Mfrs. PA-404. Designed for pumping liquids from vats, drums or barrels to other containers, capacity 10 GPM. Furnished complete with 1-1/2-2 inch straight bung attachment, 1 inch suction pipe and spout.

### LIST EACH

Iron Iron Fitted ..\$16.90  
Iron Bronze Fitted ..\$15.50  
All Bronze .....\$45.80

Illustrating  
Big Brother.

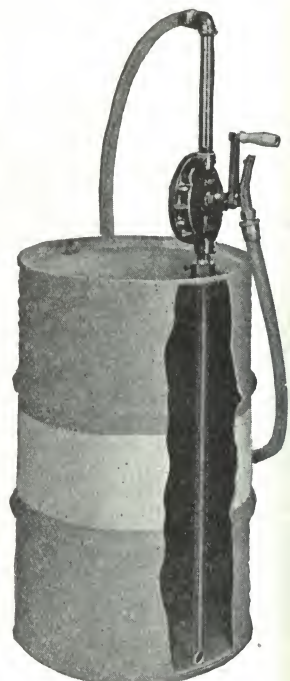


Fig. 5197. Mfrs. PA-405

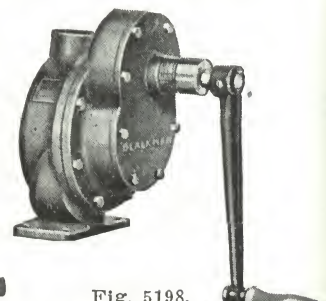


Fig. 5198.  
Mfrs. PA-605

Are used exclusively on small tank trucks not warranting power pumps for unloading purposes. Both pumps equipped with mounting feet to hold pump rigid to a flat surface. Where very viscous liquids are to be pumped from drums or containers the PA-405 having 1-1/2 inch pipe connections is recommended in place of the PA-404. PA-605 is equipped with gears for increasing the pump capacity without increasing the turning speed of the crank.

Fig. 5197. PA-405—12 G.P.M. capacity, 1-1/2 inch suction pipe, 2 inch bung attached.

### LIST EACH

Iron Iron Fitted .....\$33.40  
Iron Bronze Fitted .....\$37.00  
All Bronze .....\$80.10

Fig. 5198. PA-605—30 G. P. M. capacity, 1-1/2 inch suction pipe, 2 inch bung attached.

### LIST EACH

Iron Iron Fitted .....\$39.50  
Iron Bronze Fitted .....\$37.00  
All Bronze .....\$105.40

★ NET EXTRA for taper bung attachments on Hand Pumps.

Mfrs. No.	Iron Fitted	Iron Bronze Fitted	All Bronze
PA-404	\$0.60	\$0.60	\$2.10
PA-404 Big Brother	\$0.60	\$0.60	.....
PA-405	\$0.90	\$0.90	\$1.70
PA-605	\$0.90	\$0.90	\$1.70

25% OFF



## FLOMORE ROTARY VANE TYPE PUMPS

For the efficient handling of all kinds of liquids. A rotary vane type pump with an entirely different principle of operation. The action is positively controlled by means of a stationary cam. With every revolution of the rotor, a definite amount of liquid is drawn into the pump through the suction inlet opening and discharged through the discharge outlet opening. The amount of liquid pumped per minute varies in direct proportion to the speed of rotor.

This pump is self-priming, has a positive action, gives maximum efficiency, is economical in operation, and uniform in flow. The design is simple, with no springs or valves, and is easy to take apart, and easy to keep clean. Where a sanitary pump is required for foods, and edible materials, these pumps are furnished with an all-bronze construction. Where a sanitary pump is not required, an all-iron construction can be specified. The purposes for which this pump is adapted are almost without number. Any liquid that does not contain dirt or grit can be handled efficiently. Where liquids must be filtered or screened this pump will force the liquid through very fast.

In a test by the University of Wisconsin in its hydraulic laboratories, the following pump performance data was obtained and placed on record; it operates smoothly, quietly, and without vibration at varying speeds; it develops and maintains a suction lift of 28 feet; it is self-priming, and primes itself with air admitted into the suction line; it will operate satisfactorily against discharge pressures up to 100 pounds; it will pump air and water simultaneously, and with no tendency to air bind.

Be sure to specify the type of liquid to be pumped so that the proper metals can be used according to the chemical composition of the liquids to be pumped.

**PUMP ONLY**—includes full length shaft and pillow lock.

**TIGHT AND LOOSE PULLEYS, BASE AND BELT SHIFT**—includes pump, tight and loose pulleys, belt shift, and base.

**V BELT CONNECTION AND BASE**—includes pump, single groove V belt pulleys for pump and motor, V

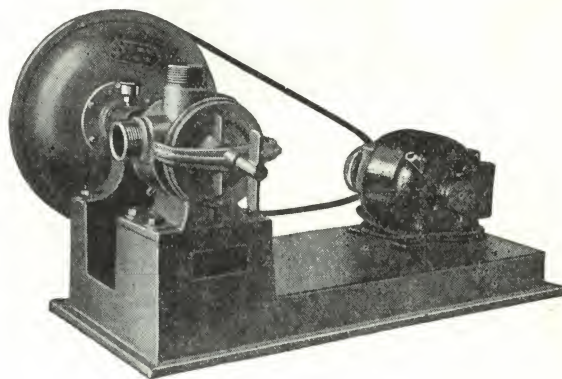


Fig. 5191

belt and base. For double groove V belt pulleys for pump and motor, for heavy service, add \$12.00 ★ NET to the price of the V belt connection.

Motors are NOT included in the prices shown. Prices on motors will be quoted on request, or refer to page 443 in Allen's Red Book. Pumps for special purposes quoted on request, please specify materials to be used and work to be accomplished.

### ★ NET EACH WITHOUT MOTOR

Size Inches	Type	Gallons Each Minute	Horse Power Motor Required	Pump Only	Tight & Loose Pulleys, Base & Belt Shift	V Belt Connection and Base
	Sanitary Bronze	10	1/2	\$38.00	\$45.00	\$50.00
-1/2	Sanitary Bronze	35	3/4 to 1	\$70.00	\$85.50	\$90.00
	Sanitary Bronze	50	1 to 1-1/2	\$87.00	\$102.00	\$105.00
-1/4	Iron	22	1/2	\$26.00	\$38.00	\$44.00
-1/2	Iron	40	3/4 to 1	\$30.00	\$42.50	\$50.00
	Iron	50	1 to 1-1/2	\$37.00	\$53.00	\$60.00
-1/2	Iron	100	2	\$56.00	\$66.00	\$80.00

## OBERDORFER AUTOMATIC ELECTRIC SUMP PUMP

NEW IMPROVED MODEL. LARGE CAPACITY. LOW OPERATING COST.

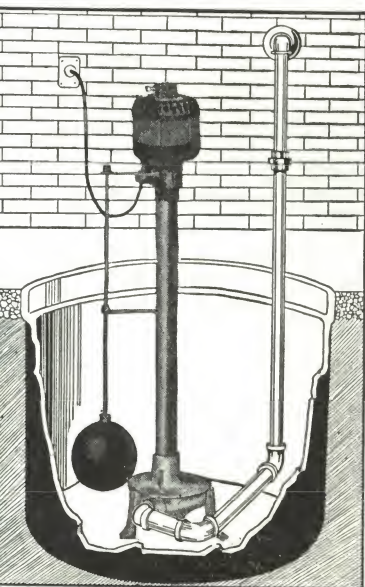


Fig. 5190. Model B-2400  
Illustrating Typical Pump  
Installation

When properly installed, it has no equal as to price, construction, durability, appearance and trouble-proof performance. The motor is of exceptional quality, ruggedly constructed for long life. Built into it is a Thermal Overload Protective Device which is positively dependable and will protect the motor in case pump is stalled. It can easily be reset when trouble is cleared. Overload control is part of the motor. It is located on top of the motor where it is easily accessible. To reset turn the knob located there for this purpose. The Oberdorfer Pump is a submerged type Vertical Centrifugal pump with open impeller. It is built entirely of bronze, making it rust proof and is so constructed to give long life and satisfactory service in operation. Because of the large volume (3000 gallons each hour) with a 1/4 horse power motor, the actual operating cost is trivial, amounting to only 1 to 1-1/2 cents each hour according to power rate. We recommend when installing, the use of 1-1/4 inch or 1-1/2 inch outlet pipe for most efficient service. The outlet is tapped for 1 inch standard fittings. Ball bearing motor (1/4 H. P. 110 volt, 60 cycle, 1725 R.P.M.) Induction type heavy duty, continuous service, rugged in construction and built especially for sump pump application.

**AUTOMATIC CONTROL:** Enclosed switch, positive type, actuated by oversize ball float connected to control rod. Control rod has adjustable stops to regulate trip of switch for pumping at various levels. Large inlet is fully protected by non-clogging screen. Shipping weight, 70 pounds. 40 inches overall with 8 foot cord and plug.

### CAPACITY TABLE

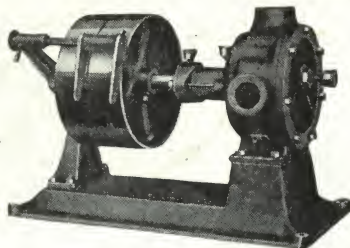
Head in Feet .....	1	5	10	15	20
Gallons Each Hour .....	3000	2400	1900	1300	600

### ★ NET COMPLETE UNIT

With 110 Volt, 60 cycle A.C. Motor .....	★ NET, \$35.00
With 110 Volt, 25 cycle, A.C. Motor .....	★ NET, \$39.50
With 220 Volt, 60 cycle, A.C. Motor .....	★ NET, \$37.00
With 115 Volt D.C. Motor .....	★ NET, \$45.00
With 32 Volt D.C. Motor .....	★ NET, \$45.50



## VIKING ROTARY PUMPS

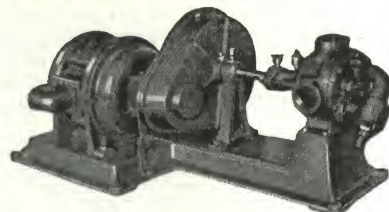


**FIG. 4654 BELT DRIVEN**

The standard belt driven pump, furnished in capacities of 20 to 90 gallons per minute, has a wide range of service—particularly suited for installations where there is already a power source. This type is specially suited for inclusion in equipment systems or outfits for specialized industries, such as Dry Cleaning, Laundry, Refrigeration, Water, Chemical and untold others. Regularly equipped with tight and loose pulleys and belt shifter. Furnished in all iron, bronze fitted, and all bronze construction. Relief valve on head as shown can be furnished on request. Other sizes and capacities on application.

### ★ NET EACH

Mfrs. No.	Suc. & Disc. Inches	Gals. Each Min.	Revs. Each Min.	Dimen. of Base Inches	Pulleys Face In.	All Iron	Bronze Fitted	All Bronze
BJ-8	1 1/4	20	450	10 x 18 3/4	7-2 1/2	27.00	32.00	50.00
BK-8	1 1/2	35	400	11 1/4 x 20 1/2	10-2 1/2	36.00	41.00	65.00
BKK-8	2	50	400	11 1/4 x 20 1/2	10-2 1/2	44.00	56.00	83.00
BL-8	2	90	390	12 1/2 x 28 1/4	12-3	57.00	70.00	115.00



**FIG. 4655 MOTOR DRIVEN**

Pumps with capacities from 20 to 90 gallons per minute, are connected to motor by means of cast iron, machine cut gears and non-metallic pinions. This type is very popular because of its flexibility. Operating speeds may be reduced easily for handling heavy liquids. All iron, bronze fitted and all bronze construction furnished as standard. Relief valve as shown in illustration is furnished on request. This compact valve enables discharge line to be closed while unit is still in operation. Makes a perfect pump insurance. Power unit can be furnished or pump unit can be built up to that point to take standard makes and sizes of motors. If customer desires to mount motor himself, we must have dimension sheet or blue print of the particular motor to be used. Other sizes and capacities on application. Motor is extra.

### ★ NET EACH

Mfrs. No.	Suc. & Disc. Inches	Gals. Each Min.	Revs. Each Min.	Horse Power Recommended	All Iron	Bronze Fitted	All Bronze
ZJ-12	1-1/4	20	450	1-1/2	43.00	48.00	66.00
ZK-12	1-1/2	35	400	2	58.00	63.00	87.00
ZKK-12	2	50	400	3	70.00	82.00	109.00
ZL-12	2	90	390	5	85.00	98.00	143.00

## FAIRBANKS MORSE PERFECTION ROTARY GEAR PUMP

Self priming pumps for any liquid that will flow freely through the pipe. Plain fitted as listed, suitable for lubricating oils, gasoline, etc. Bronze fitted is suitable for molasses, syrups, etc., price on request. All bronze, for food products such as milk, liquors, vinegar, etc., price on request. Equipped with helical gears to obtain a shearing action on the liquid, the reduces the vibration and makes the pump last longer.

**Fig. 4656. Type O—Basic Pump**

**IMPORTANT**—Type of mounting (belt drive or direct connected) must be specified when ordering un-mounted pumps.

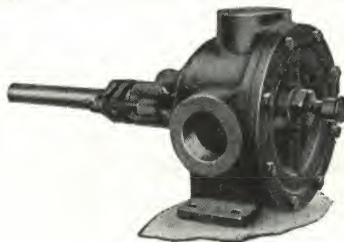
\*Size of suction and discharge same as pump size.

†Flanged pipe connections—others tapped for standard pipe.

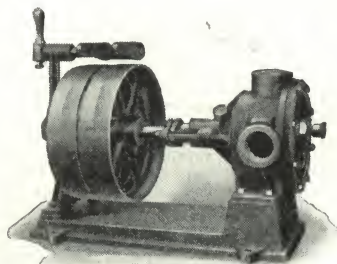
\*\*Can be furnished with 2" tapped openings.

†Can be furnished with 2 1/2" tapped openings.

††Capacities based on light liquid at no head.



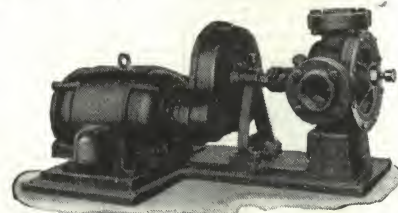
Pump Size, Inches	Gallons, per Minute	R.P.M.	Shaft Size, Inches	Ship. Weight, Pounds	★ NET EACH
3/4 L	1-1/2	1800	1/2	10	\$10.00
3/4 H	3	1800	1/2	10	\$10.00
1/2	5	1200	3/8	13	\$11.00
3/4	8-10	900-1200	3/8	15	\$12.00
1	15-20	900-1200	3/8	24	\$15.00
1 1/4	20	450	1/2	57	\$20.00
**1 1/2	40	450	1/2	65	\$24.00
†2 L	60	450	1/2	70	\$28.00
†2 HX	90	390	1-3/8	130	\$37.00
†2 1/2 H	120	400	1-3/8	145	\$53.50
†3	225	375	1-15/16	345	\$90.00
4	300	300	1-3/4	420	\$105.00



**Fig. 4657 Type 1—Belt Drive**

These units are furnished with tight and loose pulleys and belt shifter for drive from line shaft or motor. This type is particularly suited for inclusion in equipment systems or outfits for such industries as food products, dry cleaning, laundry, refrigeration, etc.

Pump Size, Inches	Gallons per Minute	Revolutions per Minute	Base Dimen. Inches	Size of Pulley, Inches	Ship. Weight, Pounds	★ NET EACH
3/4	8	900	11 3/4 x 21 3/4	4 x 1	17	\$17.00
1	15	1200	11 3/4 x 21 3/4	4 x 1	17	\$17.00
1 1/4	20	450	11 3/4 x 21 3/4	4 x 1	17	\$17.00
1 1/2	40	450	11 3/4 x 21 3/4	4 x 1	17	\$17.00
2 L	60	450	11 3/4 x 21 3/4	4 x 1	17	\$17.00
2 HX	90	390	11 3/4 x 21 3/4	4 x 1	17	\$17.00
2 1/2 H	120	400	11 3/4 x 21 3/4	4 x 1	17	\$17.00
3	225	375	11 3/4 x 21 3/4	4 x 1	17	\$17.00
4	300	300	11 3/4 x 21 3/4	4 x 1	17	\$17.00



**Fig. 4658 Type 5—Gear Drive**

Type 5 rotary pumps are the most popular type of motor-driven units due to the flexibility which permits speed reductions to certain limits with 1800 r.p.m. motors and further reductions with the use of lower speed motors. Motors are extra.

Pump Size, Inches	Gallons per Minute	Revolutions per Minute	Base Dimensions, Inches	Shipping Weight, Pounds	★ NET EACH
3/4	8	900	11 3/4 x 21 3/4	38	\$28.00
1	15	900	11 3/4 x 21 3/4	55	\$36.00
1 1/4	20	450	19 1/2 x 30 1/4	193	\$43.00
1 1/2	40	450	22 1/2 x 40 1/4	260	\$58.00
2 L	60	450	22 1/2 x 40 1/4	262	\$70.00
2 HX	90	390	21 3/4 x 40	310	\$85.00
2 1/2 H	120	400	21 3/4 x 37 3/4	323	\$116.00
3	225	375	.....	700	\$190.00
4	300	300	.....	1100	\$265.00

Specify Liquid to be Handled, Operating Pressure and Size Wanted. Specify Current, Voltage, Etc. if Motor is to be Furnished.



## WORTHINGTON HORIZONTAL DUPLEX PISTON PUMPS

**Use.** Best adapted for liquids fairly free from grit. More suitable for high suction lift than plunger pumps. Will handle thick or thin, hot or cold liquids.

**Steam Cylinders.** Cast iron, integral with cradle, separate from liquid end, except 3x2x3 and 3½x2¼x4 which has steam cylinder, cradle and liquid cylinder integral.

**Steam Valve Gear.** Valve rod heads, valve rod links, levers and rockershaft cranks DROP FORGED with large bearing surfaces for all pins.

**Steam Pistons.** Cast iron, box type. Piston secured to rod on taper shank with castellated nut.

**Steam Piston Rings.** American HAMMERED IRON rings are used in steam pistons resulting in more even contact at all points of ring circumference, less friction due to equal bearing on cylinder walls, less wear on cylinder and less leakage past piston rings. Stock pumps may be operated with steam pressures down to 25 pounds.

**Piston Rods.** Steel is regularly fitted. Sizes 3x2x3, 3½x2¼x4, 4½x2¾x4 and 4½x3¾x4, are only fitted with bronze rods.

**Stuffing Boxes and Glands.** Piston rod boxes, 5¼x-3½x5 G.S., and 5¼x4¾x5 L.S., and smaller are screw type; larger sizes are stud type.

**Liquid End.** Cast iron, submerged pistons, cap and valve plate pattern. Size 9x8½x10 L.S. is turret pattern. Centrifugal cast bronze liquid cylinder liners which give extra long wear; Minimum friction loss with any type of liquid piston packing; Pumps now fitted with fibrous piston packing can be fitted with metallic packing without first reaming out the liners; High resistance to the corrosive action of acids and acidulous water; High compressive strength practically eliminates any chance of the liner buckling when making renewals.

**Liquid Valves.** Bronze, disc, poppet type, bronze stems; brass springs.

**Valve Seats.** Bronze, screwed into decks.

**Liquid Pistons.** Regular fitted are cast iron, removable follower type. Sizes 3x2x3, 3½x2¼x4, 4½x2¾x4 and 4½x3¾x4 are fitted with bronze pistons. Piston secured to rod on taper shank with nut and lock nut.

**Standard Fittings.** Air and drain cocks, thumb plugs, draw bolts, and all necessary wrenches.

**Extras.** Steam cylinder lagging, bronze piston rods on 6 inch stroke and upward, bronze pistons, pressure regulator or speed governor, sight feed or mechanically operated lubricator, delivery air chamber, bed plate.

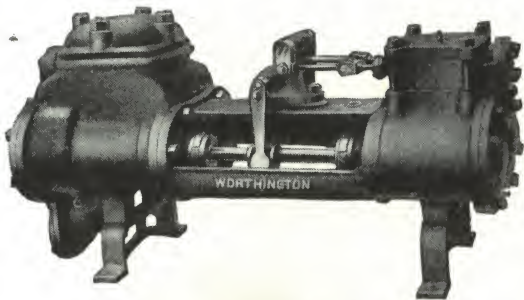


Fig. 775 (Size 5¼x3½x5 Illustrated)

### TYPE G. S. GENERAL SERVICE PUMPS For Boiler Feeding

General Service Pumps. For boiler feeding and all general pressure service up to 250 pounds per square inch at the point where the pump is placed.

*\*This capacity may be increased 30% for emergency service.*

#### ★ NET PRICES EACH

Diameter		Length of Stroke, In.	H. P. of Boiler	Steam Pipe, In.	Exhaust Pipe, In.	Suction Pipe, In.	Discharge Pipe, In.	Overall Length, In.	Overall Width, In.	REGULAR BRONZE	
Steam Cylinders, In.	Water Piston, In.									FITTED ★ NET EACH	FITTED ★ NET EACH
3	2	3	80	¾	¾	1¼	1	24	9	.....	\$87.00
3½	2¼	4	120	¾	¾	1½	1¼	28	9	.....	\$99.50
4½	2¾	4	180	¾	¾	2	1½	33	13	.....	\$124.50
5¼	3½	5	325	¾	1¼	2½	1½	38	16	\$163.50	\$182.50
6	4	6	460	1	1¼	3	2	44	17	\$190.50	\$214.50
7½	5	6	725	1½	2	4	3	45	22	\$278.50	\$302.50
7½	4½	10	845	1½	2	4	3	59	22	\$330.50	\$354.50
9	5¼	10	170	2	2½	4	3	61	23	\$381.00	\$405.00
10	6	10	515	2	2½	5	4	62	26	\$435.00	\$460.00

### TYPE L. S. LOW SERVICE PUMPS For Tank Service

Low Service Pumps. For general service up to 125 pounds per square inch at the point where the pump is placed. For use in tank service, industrial distilleries, gas and oil works, tanneries, bleacheries, refineries, etc.

*\*This capacity may be increased 30% for emergency service.*

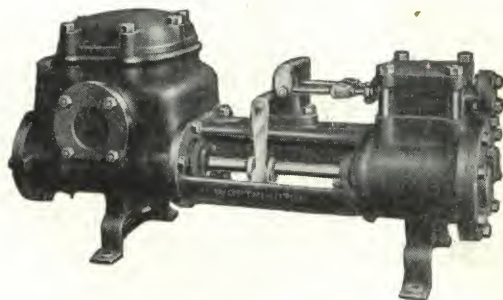


Fig. 776 (Size 6x5¼x6 Illustrated)

#### ★ NET PRICES EACH

Diameter		Length of Stroke, In.	Piston Speed per Minute	Gals. per Minute	Steam Pipe, In.	Exhaust Pipe, In.	Suction Pipe, In.	Discharge Pipe, In.	Overall Length, In.	Overall Width, In.	REGULAR BRONZE	
Steam Cylinders, In.	Water Piston, In.										FITTED ★ NET EACH	FITTED ★ NET EACH
4½	3¾	4	30	35	¾	¾	2½	1½	35	13	.....	\$162.00
5¼	4¾	5	34	63	¾	1¼	3	2	39	16	\$207.50	\$219.50
6	5¾	6	36	97	1	1¼	4	3	47	17	\$240.50	\$264.50
7½	6	10	52	154	1½	2	5	4	57	21	\$361.00	\$391.00



# COPPER PLUMBING FITTINGS

## USING COPPER FLANGED PLUMBING FITTINGS AND COPPER PIPE

Leakproof. Permanent. Age-proof. Trouble-proof. Economical. Defies the ravages of time. Copper pipe connections are designed with an exclusive double-seal feature—a 45° plus a 90° connection. Instead of one point of contact between the flanged pipe and the connection, there are two, one for the tightness and one for strength, making the plumbing installation permanently leakproof. Threading is entirely eliminated, so that a lighter copper pipe could be used. Reduces the number of fittings to a minimum. The ductility of copper pipe permits it to be bent in and around the most annoying obstructions.

### TEES

The run sizes are first, then the outlet.

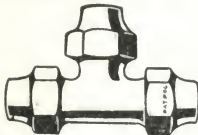


Fig. 3889  
Copper by copper by copper.



Fig. 5215  
Copper by copper by female.

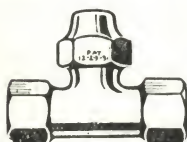


Fig. 5216  
Female iron pipe thread by female iron pipe thread by copper.

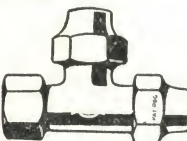


Fig. 5217  
Female iron pipe thread by copper by copper.



Fig. 5218  
Female iron pipe thread by copper by female iron pipe thread.

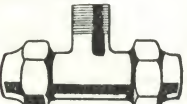


Fig. 5219  
Copper by copper by male iron pipe thread.

### TEES

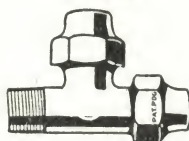


Fig. 5220  
Male iron pipe thread by copper by copper.

### TEE LISTS

Size, Inches	LIST EACH
1/4x1/4x1/4	\$0.45
3/8x3/8x3/8	\$0.50
1/2x1/2x1/2	\$0.70
3/4x3/4x3/4	\$1.00
1x1x1	\$1.75
1-1/4x1-1/4x1-1/4	\$3.00
1-1/2x1-1/2x1-1/2	\$4.55
2x2x2	\$6.90

### REDUCING TEES

Fig. 3889 sizes only are listed. Use the above Tee list of the largest opening.

3/8x3/8 Run.	1/2; 3/4 Outlets.
1/2x3/8 Run.	3/8; 1/2; 3/4 Outlets:
1/2x1/2 Run.	3/8; 3/4; 1 Outlets.
3/4x3/8 Run.	3/8; 1/2; 3/4 Outlets:
3/8; 1/2; 3/4; 1	3/4x1/2 Run = Outlets:
3/4x3/4 Run = Outlets:	3/8; 1/2; 1; 1-1/2
1x3/8 Run = Outlets:	1
1x1/2 Run = Outlets:	1/2; 3/4; 1
1x3/4 Run = Outlets:	1/2; 3/4; 1
1x1 Run = Outlets:	1/2; 3/4; 1; 1-1/4; 1-1/2
1-1/4x1/2 Run = Outlets:	1; 1-1/4
1-1/4x3/4 Run = Outlets:	3/4; 1; 1-1/4
1-1/4x1 Run = Outlets:	1/2; 3/4; 1; 1-1/4
1-1/4x1-1/4 Run = Outlets:	3/8; 1/2; 3/4; 1; 1-1/2; 2
1-1/2x3/4 Run = Outlets:	3/4; 1-1/2
1-1/2x1 Run = Outlets:	1; 1-1/4; 1-1/2
1-1/2x1-1/4 Run = Outlets:	1/2; 3/4; 1; 1-1/4; 1-1/2; 2
1-1/2x1-1/2 Run = Outlets:	1/2; 3/4; 1; 1-1/4; 2
2x1/2 Run = Outlets:	1
2x1 Run = Outlets:	2
2x1-1/4 Run = Outlets:	1-1/4; 1-1/2; 2
2x1-1/2 Run = Outlets:	1; 1-1/4; 1-1/2; 2
2x2 Run = Outlets:	1/2; 3/4; 1; 1-1/4; 1-1/2

### 90° ELBOWS



Fig. 3893  
Copper by copper.

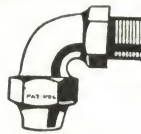


Fig. 5221  
Copper by male iron pipe thread.



Fig. 5222  
Copper by female iron pipe thread.

Size, Inches	LIST EACH
1/4x1/4	\$0.30
3/8x3/8	\$0.35
1/2x1/2	\$0.45
3/4x3/4	\$0.70
1x1	\$0.95
1-1/4x1-1/4	\$1.80
1-1/2x1-1/2	\$2.70
2x2	\$4.25

REDUCING ELBOWS take the list of the largest opening.

Partial list of sizes.	
3/8x1/2	3/4x1/2
1/2x3/8	3/4x1
1/2x3/4	1x3/4
1/2x1	1-1/2x1

### CROSSES

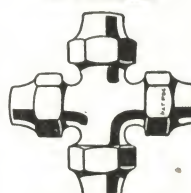


Fig. 5223  
Copper by copper by copper by copper.

Size, Inches	LIST EACH
3/8x3/8x3/8x3/8	\$0.80
1/2x1/2x1/2x1/2	\$1.00
3/4x3/4x3/4x3/4	\$1.55
1x1x1x1	\$2.65
1-1/4x1-1/4x1-1/4x1-1/4	\$4.35
1-1/2x1-1/2x1-1/2x1-1/2	\$6.75
2x2x2x2	\$10.35

### COUPLINGS [Adapters]



Fig. 3895  
Copper by female iron pipe thread.



Fig. 5224  
Copper by male iron pipe thread.

REDUCING COUPLINGS take the list of the largest size.

Fig. 3895	Fig. 5224
1/4x1/2	3/8x1/2
3/8x1/2	1/2x3/8
1/2x3/8	1/2x3/4
1/2x1	3/4x3/8
3/4x3/8	3/4x1/2
1x3/4	1x3/4
1-1/2x2	1-1/2x1-1/4

### 2 PART UNIONS



Fig. 3891  
Copper by copper.

Size, Inches	LIST EACH
1/4x1/4	\$0.20
3/8x3/8	\$0.25
1/2x1/2	\$0.35
3/4x3/4	\$0.45
1x1	\$0.80
1-1/4x1-1/4	\$1.40
1-1/2x1-1/2	\$2.00
2x2	\$2.70

### 3 PART UNIONS



Fig. 5225  
Copper by copper.

Size, Inches	LIST EACH
1/4x1/4	\$0.30
3/8x3/8	\$0.35
1/2x1/2	\$0.45
3/4x3/4	\$0.70
1x1	\$1.20
1-1/4x1-1/4	\$2.00
1-1/2x1-1/2	\$3.00
2x2	\$5.20

### TANK FITTINGS

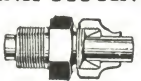


Fig. 5226  
Copper by male iron pipe to slip copper pipe.

Size, Inches	LIST EACH
1/4x3/8	\$0.35
3/8x1/2	\$0.45
3/8x3/4	\$0.50
3/8x1	\$0.80
1/2x1/2	\$0.45
1/2x3/4	\$0.80
1/2x1	\$0.80
3/4x1	\$1.00

### COPPER HAMMER

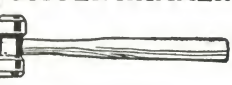


Fig. 3898  
2 Pound Weight.....\$1.60  
3 Pound Weight.....\$2.00

### FLANGING TOOL



Fig. 3897  
Size, Inches LIST EACH

1/4	\$1.10
3/8	\$1.10
1/2	\$1.10
3/4	\$1.30
1	\$1.75
1-1/4	\$3.50
1-1/2	\$4.80
2	\$5.75

### COPPER PIPE HOLDER



Fig. 5227  
Specify size: 1/4, 3/8, 1/2 or 3/4 inch.  
With 1 Set of Inchs.....\$3.25  
Extra Jaws.....\$2.10

### COPPER TUBE BENDING MACHINE



Fig. 5228  
1/4 In. List Each, \$8.75  
3/8 In. List Each, \$8.75  
1/2 In. List Each, \$10.00  
3/4 In. List Each, \$12.50  
1 In. List Each, \$17.00

### DISCOUNT

{COPPER PIPE PLUMBING FITTING.....20% OFF  
{ALL TOOLS.....LIST NET

### COPPER WATER TUBING

Fig. 3899. For plumbing, heating, and gas lines. In coils of 30, 45, and 60 foot coils. Soft temper. 3-1/2, 4, 5, 6 and 8 inch sizes can also be furnished. Copper pipe 1/8 to 12 inches can be furnished, prices on request.

Nominal Size, Inches	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2	2-1/2	3
Outside Diameter, Inches	.500	.625	.750	.875	1.125	1.375	1.625	2.125	2.625	3.125
Inside Diameter, Inches	.402	.527	.652	.745	.995	1.245	1.481	1.959	2.435	2.907
Thickness Wall, Inches	.049	.049	.049	.065	.065	.065	.072	.083	.095	.109
Pounds Each Linear Foot	.269	.344	.418	.641	.839	1.04	1.36	2.06	2.92	4.00

Nominal Size, Inches	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2	2-1/2	3
Outside Diameter, Inches	.500	.625	.750	.875	1.125	1.375	1.625	2.125	2.625	3.125
Inside Diameter, Inches	.430	.545	.666	.785	1.025	1.265	1.505	1.985	2.465	2.945
Thickness Wall, Inches	.035	.040	.042	.045	.050	.055	.060	.070	.080	.090
Pounds Each Linear Foot	.198	.285	.362	.455	.655	.884	1.14	1.75	2.48	3.33

BILLED AT MARKET PRICES - OR - PRICES QUOTED ON APPLICATION



BRASS JACKET DRIVE WELL POINTS

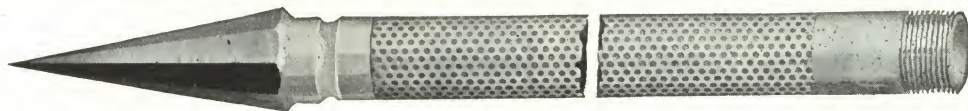


Fig. No. 777

LIST PRICES PER DOZEN

Trade No.	Inside Diameter Inches	Length of Point, Inches	Length of Jacket Inches	Aggregate Square Inches in Openings	Number of Gauge					
					60	70	80	90	100	120
74	1	24	18	15	\$ 33.00	\$ 40.00	\$ 46.00	\$ 52.00	\$ 62.00	\$ 74.00
76	1	30	24	20	42.00	49.00	56.00	64.00	78.00	94.00
78	1	36	30	25	51.00	59.00	66.00	76.00	94.00	114.00
80	1	42	36	30	60.00	68.00	76.00	88.00	120.00	134.00
82	1	48	42	35	69.00	78.00	86.00	100.00	136.00	154.00
84	1	54	48	40	78.00	87.00	96.00	112.00	152.00	174.00
84½	1	60	54	45	87.00	96.00	106.00	124.00	168.00	194.00
86	1¼	20	14	15	39.00	36.00	42.00	50.00	64.00	80.00
90	1¼	24	18	20	36.00	44.00	52.00	60.00	80.00	105.00
94	1¼	30	24	26½	46.00	55.00	64.00	75.00	100.00	130.00
98	1¼	36	30	33	56.00	66.00	76.00	90.00	120.00	155.00
100	1¼	42	36	39½	66.00	77.00	88.00	105.00	140.00	180.00
102	1¼	48	42	45½	76.00	88.00	100.00	120.00	160.00	205.00
106	1¼	54	48	52	86.00	99.00	112.00	135.00	180.00	230.00
110	1¼	60	54	58½	96.00	110.00	124.00	150.00	200.00	255.00
112	1¼	66	60	65	106.00	121.00	136.00	165.00	220.00	280.00
136	1½	24	18	22½	48.00	57.00	65.00	78.00	94.00	112.00
140	1½	30	24	30	60.00	70.00	80.00	96.00	118.00	139.00
144	1½	36	30	37½	72.00	84.00	95.00	114.00	142.00	166.00
146	1½	42	36	45	84.00	97.00	110.00	132.00	166.00	193.00
148	1½	48	42	52½	96.00	111.00	125.00	150.00	188.00	220.00
150	1½	54	48	60	108.00	124.00	140.00	168.00	204.00	247.00
152	1½	60	54	67½	120.00	138.00	155.00	186.00	228.00	274.00
154	1½	66	60	75	132.00	151.00	170.00	204.00	252.00	301.00
156	1½	72	66	82½	144.00	165.00	185.00	222.00	276.00	328.00
160	2	24	18	26	75.00	85.00	94.00	110.00	130.00	150.00
164	2	30	24	35	90.00	101.00	112.00	132.00	160.00	185.00
168	2	36	30	43½	105.00	118.00	130.00	154.00	190.00	220.00
170	2	42	36	52½	120.00	134.00	148.00	176.00	220.00	255.00
172	2	48	42	62	135.00	151.00	166.00	198.00	250.00	290.00
174	2	54	48	70	150.00	167.00	184.00	220.00	280.00	325.00
176	2	60	54	78½	165.00	184.00	202.00	242.00	310.00	360.00
178	2	66	60	87½	180.00	200.00	220.00	264.00	340.00	395.00
180	2	72	66	96	195.00	217.00	238.00	288.00	370.00	430.00
180½	2	78	72	105	210.00	234.00	256.00	308.00	400.00	465.00
182	2	84	78	113	225.00	251.00	274.00	330.00	430.00	500.00
183	2½	30	24	40	155.00	175.00	195.00	220.00	250.00	290.00
184	2½	36	30	50	180.00	205.00	230.00	260.00	300.00	350.00
188	2½	48	42	70	230.00	265.00	300.00	340.00	400.00	470.00
192	2½	60	54	90	280.00	325.00	370.00	420.00	500.00	590.00
196	2½	72	66	110	330.00	385.00	440.00	500.00	600.00	710.00
197	2½	84	78	130	380.00	445.00	510.00	580.00	700.00	830.00
200	3	36	30	67½	240.00	275.00	310.00	340.00	410.00	490.00
204	3	48	42	94½	300.00	345.00	390.00	430.00	520.00	630.00
208	3	60	54	111½	360.00	415.00	470.00	520.00	630.00	770.00
212	3	72	66	138½	420.00	485.00	550.00	610.00	740.00	910.00
214	3	84	78	165½	480.00	555.00	630.00	700.00	850.00	1,050.00
202	3½	36	30	70	300.00	345.00	390.00	430.00	520.00	610.00
206	3½	48	42	98	360.00	415.00	470.00	520.00	630.00	750.00
210	3½	60	54	126	420.00	485.00	550.00	610.00	740.00	890.00
213	3½	72	60	141	480.00	555.00	630.00	700.00	850.00	1,030.00
216	4	48	36	90	480.00	520.00	560.00	600.00	700.00	810.00
220	4	72	60	150	630.00	695.00	760.00	840.00	1,000.00	1,270.00
224	4	96	84	210	780.00	870.00	960.00	1,080.00	1,300.00	1,610.00
228	4	120	108	270	930.00	1,045.00	1,160.00	1,320.00	1,600.00	2,010.00

Please order by trade number. We cover points to order with 20, 30, 40 or 50 gauge; 20 and 30 gauge take same list as 70: 40 and 50, same as 60.

**DISCOUNT** . . { 1-1/4 Inch, Nos. 90, 94 and 98 . . . . . 40% OFF  
All Other Sizes . . . . . 30% OFF

DRIVE WELL SHOES—Malleable Iron—Cast Steel—Forged Steel

Malleable Iron

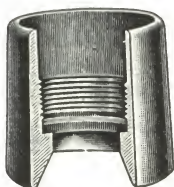


Fig. 433M

With or without shoulder.	
Size of Pipe, In.	List Each
2	.....\$1.00
2½	..... 1.40
3	..... 1.80
3½	..... 2.40
4	..... 3.00

PRICE . . . . . LIST PLUS 6%

Shoes for well casing will be supplied at same list, intermediate sizes being charged at price of next larger size.

Forged Steel

Fig. 421M

Made of steel forgings. Turned true inside and outside. Long recess. For severe driving.

Size of Pipe, In.	List Each
2	.....\$2.20
2-1/2	.....\$2.90
3	.....\$4.10
3-1/2	.....\$4.80
4	.....\$5.40
4-1/2	.....\$7.00
5	.....\$8.30
6	.....\$12.40
8	.....\$17.70



DISCOUNT . . . . . 10% OFF



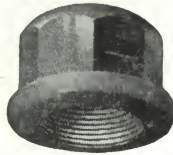
**MALLEABLE IRON DRIVE CAPS**

Fig. No. 618M

These caps are made for driving well points; they are extra heavy and especially designed for driving pipe, and are much stronger than the ordinary cap.

**LIST PRICES EACH**

For Pipe	List Each
1 1/4 in.....	\$0.40
1 1/2 in.....	.48
2 in.....	.88
2 1/2 in.....	2.00
3 in.....	2.50
4 in.....	3.00

DISCOUNT ..... 10% OFF

**STEEL DRIVE HEADS**

Fig. No. 619M

**LIST PRICES EACH**

For Pipe	List Each
1 1/4 in.....	\$ 2.75
1 1/2 in.....	3.65
2 in.....	4.60
2 1/2 in.....	11.00
3 in.....	16.50
4 in.....	29.30
5 in.....	44.00
6 in.....	55.00

PRICE ..... LIST PLUS 6%

**EARTH AUGERS**

600M, 601M, 602M, 603M, 604M

Chisel Bit Auger, Fig. 600M, for clay and hard pan.

Pod Auger, Fig. 601M, for boring and removing core.

Ribbon Auger, Fig. 602M, for general boring.

Twist Auger, Fig. 603M, for general boring.

Spiral Auger, Fig. 604M, for loosening and removing stone.

Please order by figure number.

**LIST PRICES EACH**

Size of Hole, Inches	Threaded for Pipe, Inches	List Each
2	1	\$8.40
2-1/2	1-1/4	\$9.00
3	1-1/4	\$9.80

DISCOUNT ..... 10% OFF

**PIPE DRIFTS**  
For Tubular Well Pipe

Fig. No. 621M

**LIST PRICES EACH**

2 inch.....	List Each, \$ 5.00
2 1/2 inch.....	List Each, 7.00
3 inch.....	List Each, 10.00

PRICE ..... LIST PLUS 16%

**WELL DRILLS**

Fig. No. 615M



Fig. No. 616M

Made from crucible steel, tempered. Furnished with either ball or flat poppet.

**LIST PRICES EACH**

For Well, Inches	Threaded For Pipe, Inches	LIST EACH
2	1	\$4.00
2 1/2	1	6.00
3	1 1/4	8.00
4	2	10.00

DISCOUNT ..... 19% OFF

**SAND PUMPS**

Fig. No. 629M

**LIST PRICES EACH**

For Well, Inches	List Each
2	\$ 5.00
2 1/2	5.50
3	6.00
4	8.00
5	10.00
6	12.00
7	14.00
8	16.00

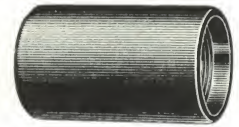
DISCOUNT  
19% OFF**TOOL COUPLINGS**

Fig. No. 623M

These couplings are of wrought iron, extra long and heavy, and are especially made for use with well tools.

**LIST PRICES EACH**

Size	For Pipe, Inches	List Each
1 x 3 1/2	1	\$0.50
1 1/4 x 3 3/4	1 1/4	.60
1 1/2 x 3 3/4	1 1/2	.75
2 x 3 3/4	2	1.00

PRICE ..... LIST PLUS 6%

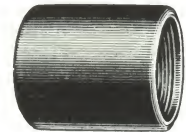
**ARTESIAN COUPLINGS**

Fig. No. 2632

This coupling may be used on tubular cylinder for shoulder at intermediate point in place of pipe coupling.

**LIST PRICES EACH**

Size, Inches	List Each
2	\$1.00
2 1/2	1.70
3	2.00
3 1/2	3.00
4	3.30

DISCOUNT ..... 10% OFF

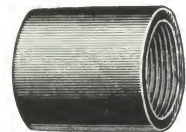
**TURNED COUPLINGS**

Fig. No. 434M

Wrought iron, turned and faced. They are used to suspend strainer from shoe or shoulder in well and to seat tubular well check valve.

**LIST PRICES EACH****Couplings**

Coupling, Inches	For Cylinder, Inches	For Strainer, Inches	List Each
1 1/4	2	1 1/4	\$0.38
1 1/2	2 1/2	1 1/2	.80
2	3	2	1.92
With Right and Left Hand Threads			
1 1/4	2	1 1/4	\$0.76
1 1/2	2 1/2	1 1/2	1.28
2	3	2	1.92

DISCOUNT ..... 10% OFF

**NEVER-SLIP ROD TONGS**

Fig. No. 808

Made of malleable iron, will hold 3/8 and 1/2 in. pump rod, fitted with removable steel jaw.

★ NET EACH, \$1.10



## HEXAGON STEEL ROD COUPLINGS



Fig. 3736, Hexagon

Cold rolled steel hexagon couplings for iron pump rod. Accurately machined, drilled and tapped straight through to insure against crooked threads. High tensile steel gives great strength, prevents spreading or cracking when rod is forced in. Cadmium plated to prevent rust. 14 threads for  $\frac{3}{8}$  inch and 12 threads for  $\frac{1}{2}$  inch and  $\frac{1}{2}$  inch are regular for most pump rods. Specify thread.

## ★ NET PRICES PER 100

Size Rods, Inches	Thread to the Inch	★ NET 100 PIECES
$\frac{3}{8}$	14, regular	\$5.45
$\frac{1}{2}$ x $\frac{3}{8}$	12	\$5.45
$\frac{1}{4}$	12	\$5.45
$\frac{1}{2}$	12	\$5.45

## "DEMON GRIP" STEEL ROD COUPLINGS



Fig. No. 3009

Forged steel blanks, holes reamed and faced, insuring threads and holes that are in line. Electro galvanized. 25 in package.

## Galvanized

## ★ NET PRICES PER 100

	★ NET 100
3/8 Inch	\$4.95
7/16 Inch	\$5.50
3/8x7/16 Inch	\$4.85
1/2 Inch	\$7.50
3/8x1/2 Inch	\$7.70
7/16x1/2 Inch	\$6.60

## REDUCER COUPLINGS

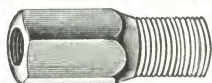


Fig. No. 799, Male and Female

For  $\frac{1}{2}$  inch and  $\frac{3}{8}$  inch pipe and steel pump rods.

Be sure to specify whether female thread both ends, or male and female thread, is wanted.

## LIST EACH

Size Pipe, Inches	Size Rod, Inches	LIST EACH Cadmium Plated
$\frac{3}{8}$	$\frac{3}{8}$	\$0.20
$\frac{3}{8}$	$\frac{7}{16}$	\$0.20
$\frac{1}{2}$	$\frac{3}{8}$	\$0.30
$\frac{1}{2}$	$\frac{7}{16}$	\$0.30

DISCOUNT ..... 10% OFF

## WINDMILL TANK VALVES



Fig. No. 998

## ★ NET PRICES EACH

Pipe Size, Inches	★ NET EACH	Extra Balls Net Each
$\frac{3}{4}$ ....	\$1.15	\$0.12
1....	1.30	.19
$1\frac{1}{4}$ ....	1.40	.23
$1\frac{1}{2}$ ....	2.75	.38

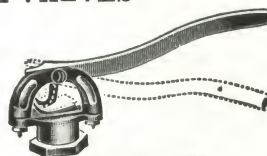


Fig. No. 999

## ★ NET PRICES EACH

Pipe Size, Inches	★ NET EACH
$\frac{3}{4}$ ....	\$0.95
1....	\$1.05
$1\frac{1}{4}$ ....	\$1.15
$1\frac{1}{2}$ ....	\$2.75

## VALVE GRABS



Fig. No. 614M

Used for removing valves from tubular wells. Made of spring steel, sufficiently large and strong for any size valves.

## ★ NET EACH, \$2.55

## COPPER TANK FLOATS



Fig. No. 788

Can be bolted to a lever attached to tank valve to open and close automatically.

No. 1, Size 12x3 in.

## ★ NET EACH, \$2.45

No. 2, Size  $9\frac{1}{2}$ x2 $\frac{3}{4}$  in.

## ★ NET EACH, \$1.80

## HOSE CLEVIS FOR PUMP SPOUT

Fig. No. 791

Made of malleable iron.

For  $\frac{3}{4}$  inch hose.

## ★ NET EACH, \$0.60

## WATER CONDUCTORS



Fig. No. 789

They are used to conduct water from the spout of pump to a tank, and are made with a swivel-head, so that the water can be carried in any direction without disconnecting from the spout. Full weight, clean threads.

## ★ NET PRICES EACH

1-1/4 in. ....	★ NET EACH, \$0.45
1-1/2 in. ....	★ NET EACH, \$0.50
2 in. ....	★ NET EACH, \$0.55

## GIANT PIPE HOLDER



Fig. No. 804

Mounted on 2 inch plank, 10 inches wide and 2 feet long.

## ★ NET PRICES EACH

No.	For Pipe, In.	★ NET EACH
1	1, $1\frac{1}{4}$ , $1\frac{1}{2}$ , 2	\$2.50
2	$1\frac{1}{2}$ , 2, $2\frac{1}{2}$	\$3.80
3	$1\frac{1}{2}$ , 2, $2\frac{1}{2}$ , 3	\$4.40

## PUMP LIFTING CLEVIS

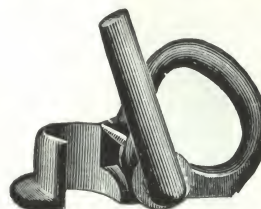


Fig. No. 807

Fits 1 inch and  $1\frac{1}{4}$  inch pipe.

## ★ NET EACH, \$1.50

## TAPER TAPS

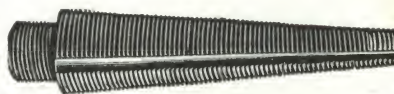


Fig. No. 626M

For pulling hollow rods. Furnished with right hand threads unless otherwise ordered.

Fitted for 1 inch pipe to pull  $\frac{3}{4}$  to  $1\frac{1}{4}$  inch pipe.

## ★ NET EACH, \$7.95

Fitted for  $1\frac{1}{4}$  inch pipe to pull  $\frac{3}{4}$  to 2 inch pipe.

## ★ NET EACH, \$11.02

Fitted for  $1\frac{1}{2}$  inch pipe to pull 2 to 3 inch pipe.

## ★ NET EACH, \$26.50



**GALVANIZED STEEL PUMP RODS****Plain Ends**

Steel pump rod is shipped in bundles weighing about 100 pounds per bundle. Each rod has plain ends, no threads or couplings. Extra charge for threads and couplings.

	$\frac{3}{8}$ in.	$\frac{7}{16}$ in.	$\frac{1}{2}$ in.
Average length per piece.....	18 ft.	18 ft.	18 ft.
Number of pieces in bundle.....	15 pcs.	11 pcs.	8 pcs.
Total length to bundle.....	270 ft.	198 ft.	144 ft.
Average weight per 100 feet.....	39 lbs.	50 lbs.	
★ NET 100 POUNDS.....	\$7.65	\$7.65	\$8.35

**WOOD ROD COUPLINGS****Forged Steel**

Fig. 4220

Made of forged steel, galvanized. Designed and fabricated for extreme strength and durability. Threads are standard, sharp and straight.

Trade No.	For Wood Rod, Inches	Holes	★ NET EAC
437	1, also $1\frac{1}{8}$	2	\$0.4
438	1, also $1\frac{1}{4}$	3	\$0.5
439	$1\frac{1}{4}$ , also $1\frac{3}{4}$	3	\$0.9

**OCTAGON WOOD PUMP RODS AND FORGED SUCKER ROD COUPLINGS**

Fig. No. 802

**OCTAGON WOOD PUMP RODS**

Fig. No. 802

Made of the best quality ash. Furnished in random lengths of about 20 feet, unless otherwise specified.

Style A—Plain, without couplings.

Style B—Fitted with forged sucker rod couplings.

Style C—Fitted with galvanized forged sucker rod couplings, copper riveted.

**★ NET PRICES PER 100 FEET**

Size of Rod, Inches	For Barrel; Diam., Inches	Style A Per 100 Ft.	Style B Per 100 Ft.	Style C Per 100 Ft.
$1\frac{1}{2}$	$1\frac{3}{8}$ to $2\frac{1}{4}$	\$11.50	\$15.75	\$17.50
$1\frac{5}{8}$	$2\frac{1}{4}$ to $2\frac{3}{4}$	\$20.60	\$26.25	\$29.15
$1\frac{7}{8}$	$2\frac{3}{4}$ to $3\frac{1}{4}$	\$26.85	\$35.70	\$39.65
$2\frac{1}{4}$	$3\frac{1}{4}$ to $5\frac{1}{4}$	\$60.30	\$73.70	\$81.65
$3\frac{1}{2}$	$5\frac{1}{4}$ to $8\frac{3}{4}$	\$122.10	\$157.50	\$175.00

**FORGED SUCKER ROD COUPLINGS**

Fig. No. 2617

These couplings are forged, have straight box and pin same size as oil well couplings, and are interchangeable with them. Adaptable for working barrels up to  $8\frac{3}{4}$  in. as shown by table below.

**★ NET PRICES PER SET**

Box and Pin, Inches	Wood Rod, Inches	Barrel Diam., Inches	Plain ★ NET SET	Galvanize ★ NET SET
$\frac{5}{8}$	$1\frac{1}{8}$	$1\frac{3}{8}$ to $2\frac{1}{4}$	\$1.25	\$1.5
$\frac{7}{8}$	$1\frac{1}{2}$	$2\frac{1}{4}$ to $2\frac{3}{4}$	\$1.80	\$2.2
1	$1\frac{7}{8}$	$2\frac{3}{4}$ to $3\frac{1}{4}$	\$2.80	\$3.5
$1\frac{1}{8}$	$2\frac{1}{4}$	$3\frac{1}{4}$ to $5\frac{1}{4}$	\$4.50	\$5.6
$1\frac{1}{2}$	$3\frac{1}{2}$	$5\frac{1}{4}$ to $8\frac{3}{4}$	\$11.30	\$14.0

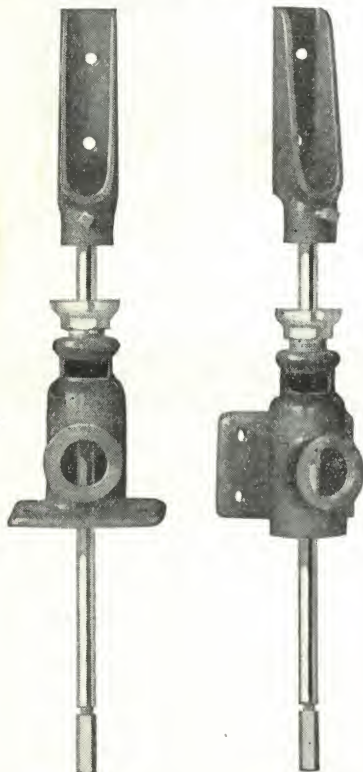


Fig. No. 710M

Fig. No. 711M

**WINDMILL STUFFING BOX HEADS**

Stroke 10 inches. Will be fitted for 1 and  $1\frac{1}{4}$  inch pipe or  $1\frac{1}{2}$  and 2 inch pipe.

The discharge for Nos. 712M and 713M is made by a Tee attached to the suction pipe below head.

**LIST PRICES EACH**

Figs. 710M and 711M

	LIST EACH
1 Inch .....	\$8.40
1-1/4 Inch .....	\$8.40
1-1/2 Inch .....	\$10.50
2 Inch .....	\$10.50
1 and 1-1/4 Inch .....	36% OFF
1-1/2 and 2 Inch .....	40% OFF

Fig. 712M

	LIST EACH
1 Inch .....	\$6.00
1-1/4 Inch .....	\$6.00
1-1/2 Inch .....	\$6.70
2 Inch .....	\$6.70
1 and 1-1/4 Inch .....	42% OFF
1-1/2 and 2 Inch .....	45% OFF

Fig. 713M

	LIST EACH
1-1/4 Inch .....	\$6.80
1-1/2 Inch .....	\$7.40
2 Inch .....	\$8.00
1-1/4 Inch .....	43% OFF
1-1/2 Inch .....	42% OFF
2 Inch .....	44% OFF

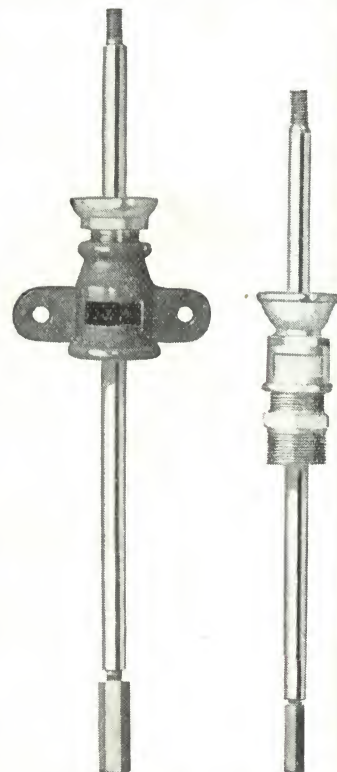


Fig. No. 712M

Fig. No. 713M



# PUMP CYLINDERS

NOTE. All cylinders listed on this page have 7/16 inch stub.

## OUTSIDE CAP

### ALL IRON

**Fig. C2D.** An all iron cylinder with a leather hinge check valve and 1 leather plunger. IRON outside nut and cap, cage, valve and follower. BRASS valve seat.

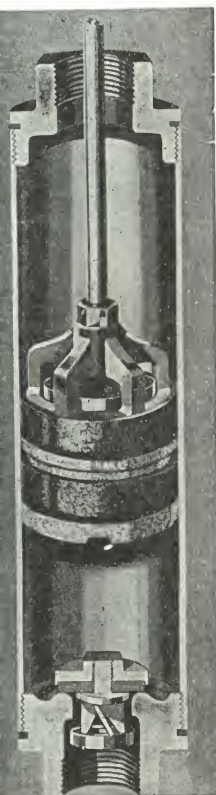
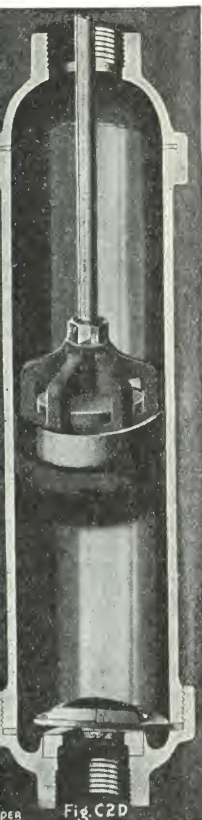
### BRASS LINED

**Fig. C3A.** A brass lined cylinder with leather hinge check valve and 2 leather plunger. (10 inch has only 1 leather). IRON outside nut and cap, ring and follower. BRASS cage, valve and valve seat.

### BRASS LINED

**Fig. C9B.** A brass lined cylinder with Whirling Check valve and 2 leather plunger. (10 inch has only 1 leather). IRON outside nut and cap. BRASS cage, valve, valve seat, ring and follower.

Size Inch	Pipe Size Tap	Max. Outside Diam.	Maximum Stroke			Approximate Weight—Pounds			LIST EACH		
			C2D	C3A	C9B	C2D	C3A	C9B	C2D	C3A	C9B
2 1/2 x 10	1 1/4	3 5/8	7 1/2	6 1/2	6	11	12 1/2	11 3/4	\$2.10	\$ 4.70	\$ 5.00
3 x 10	1 1/4	4 1/8	7 1/2	6 1/2	6	12 1/2	13 1/2	14	\$2.43	\$ 5.30	\$ 5.79
3 1/2 x 10	1 1/2	4 5/8	7 1/2	6 1/2	6	15	16 1/4	16 3/4	\$3.40	.....	\$ 6.79
4 x 10	2	5 1/4	7 1/2	6 1/2	6	20	23	23 1/2	\$4.36	\$ 7.60	\$ 8.77
2 x 12	1 1/4	3	...	8 1/2	8	...	9 1/2	10	.....	\$ 4.90	\$ 5.71
2 1/2 x 12	1 1/4	3 5/8	9 1/2	8 1/2	8	12 1/4	13	13 1/2	\$3.09	\$ 5.26	\$ 5.86
2 3/4 x 12	1 1/4	4 1/8	...	8 1/2	8	...	14	14 1/2	.....	\$ 5.50	\$ 6.21
3 x 12	1 1/4	4 1/8	9 1/2	8 1/2	8	14	15	15 1/2	\$3.60	\$ 5.86	\$ 6.57
3 1/2 x 12	1 1/2	4 5/8	9 1/2	8 1/2	8	16 1/2	17 3/4	18 1/4	\$4.66	\$ 6.96	\$ 7.79
4 x 12	2	5 1/4	9 1/2	8 1/2	8	22	24 1/2	25	\$5.96	\$ 8.76	\$ 9.64
2 x 14	1 1/4	3	...	10 1/2	10	...	10 1/2	11	.....	\$ 5.26	\$ 5.86
2 1/2 x 14	1 1/4	3 5/8	11 1/2	10 1/2	10	13 1/2	14 1/4	14 3/4	\$3.36	\$ 5.70	\$ 6.43
2 3/4 x 14	1 1/4	4 1/8	...	10 1/2	10	...	15 1/2	16	.....	\$ 6.00	\$ 6.79
3 x 14	1 1/4	4 1/8	11 1/2	10 1/2	10	15 1/2	16 1/2	17 1/4	\$3.86	\$ 6.30	\$ 7.07
3 1/2 x 14	1 1/4	4 5/8	11 1/2	10 1/2	10	18	19 1/4	19 3/4	\$5.16	\$ 7.56	\$ 8.50
4 x 14	2	5 1/4	11 1/2	10 1/2	10	24	26	26 1/2	\$6.70	\$ 9.64	\$10.93
2 x 16	1 1/4	3	...	12 1/2	12	...	11 1/2	12	.....	\$ 5.56	\$ 6.21
2 1/2 x 16	1 1/4	3 5/8	13 1/2	12 1/2	12	14 3/4	15 1/2	16	\$3.60	\$ 6.30	\$ 7.07
2 3/4 x 16	1 1/4	4 1/8	...	12 1/2	12	...	16 3/4	17 1/4	.....	\$ 6.60	\$ 7.43
3 x 16	1 1/4	4 1/8	13 1/2	12 1/2	12	17	18	18 1/2	\$4.10	\$ 6.96	\$ 7.79
3 1/2 x 16	1 1/2	4 5/8	13 1/2	12 1/2	12	19 1/2	20 3/4	21 1/4	\$5.80	\$ 8.30	\$ 9.36
4 x 16	2	5 1/4	13 1/2	12 1/2	12	26	27 1/2	28	\$7.46	\$10.70	\$12.14



## FLUSH CAP

### BRASS BODY

**Fig. C34B.** A brass body cylinder with "Whirling Check" valve (rubber faced) and 2 leather plunger (10 inch has only 1 leather). IRON flush nut and cap. BRASS cage, valve, valve seat, ring and follower.

### ALL BRASS

**Fig. C36B.** An all brass cylinder with "Whirling Check" valve (rubber faced) and 2 leather plunger (10 inch has only 1 leather). BRASS flush nut and cap, cage, valve, valve seat, ring and follower.

Size Inch	Pipe Size Tap	Max. Outside Diam.	Max. Stroke Inch	Approx. Weight Pounds	LIST EACH	
					C34B	C36B
1-3/4 x 12	1	1-7/8	7	5-3/4	.....	\$ 5.14
2 x 12	1-1/4	2-3/16	7	6-1/8	\$ 5.71	\$ 6.76
2-1/2 x 12	1-1/4	2-11/16	7	8-1/8	\$ 6.07	\$ 7.64
2-3/4 x 12	1-1/4	2-15/16	7	9-5/8	\$ 6.43	\$ 7.96
3 x 12	1-1/4	3-3/16	7	10-7/8	\$ 6.79	\$ 8.46
3-1/2 x 12	1-1/2	3-11/16	7	14-1/4	\$ 8.07	\$10.50
4 x 12	2	4-5/16	7	18-1/8	\$10.21	\$13.50
1-3/4 x 14	1	1-7/8	9	6	.....	\$ 5.96
2-1/4 x 14	1-1/4	2-7/16	9	7-3/4	\$ 4.50	\$ 5.67
2-1/2 x 14	1-1/4	2-11/16	9	8-1/2	\$ 6.64	\$ 8.86
2-3/4 x 14	1-1/4	2-15/16	9	10	\$ 7.00	\$ 9.30
3 x 14	1-1/4	3-3/16	9	11-3/8	\$ 7.36	\$ 9.86
3-1/2 x 14	1-1/2	3-11/16	9	14-7/8	\$ 8.79	\$12.50
4 x 14	2	4-5/16	9	18-7/8	\$11.29	\$15.76
1-3/4 x 16	1	1-7/8	11	6-1/4	.....	\$ 6.20
2 x 16	1-1/4	2-3/16	11	6-7/8	\$ 6.43	\$ 8.20
2-1/2 x 16	1-1/4	2-11/16	11	8-7/8	\$ 7.36	\$ 9.64
2-3/4 x 16	1-1/4	2-15/16	11	10-1/2	\$ 7.71	\$ 9.90
3 x 16	1-1/4	3-3/16	11	11-7/8	\$ 8.07	\$10.36
3-1/2 x 16	1-1/2	3-11/16	11	15-1/2	\$ 9.64	\$13.36
4 x 16	2	4-5/16	11	19-3/8	\$12.50	\$16.26

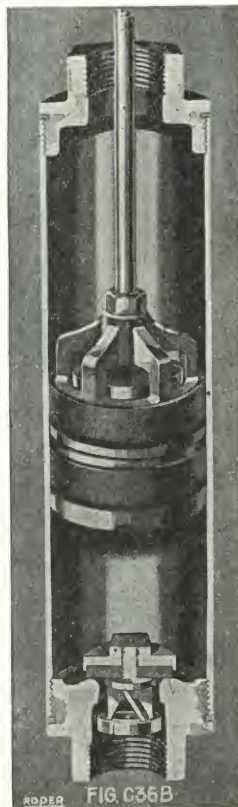


Fig. 36B



# ROUND BRASS RODS

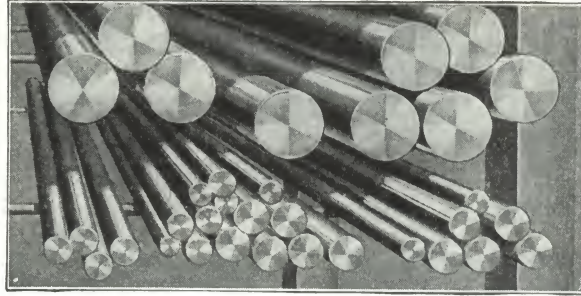


Fig. No. 3364

## Standard 12-Foot Lengths Carried in Stock

Diameter, Inches	Weight, Lbs. Round Bar 1 foot long	Diameter, Inches	Weight, Lbs. Round Bar 1 foot long	Diameter, Inches	Weight, Lbs. Round Bar 1 foot long	Diameter, Inches	Weight, Lbs. Round Bar 1 foot long
$\frac{1}{16}$	.01132	$\frac{9}{16}$	.9167	$\frac{11}{16}$	3.271	$\frac{13}{16}$	7.073
$\frac{1}{8}$	.04527	$\frac{5}{8}$	1.132	$\frac{11}{8}$	3.667	$\frac{15}{8}$	7.651
$\frac{3}{16}$	.1019	$\frac{11}{16}$	1.369	$\frac{13}{16}$	4.086	$\frac{11}{16}$	8.250
$\frac{1}{4}$	.1811	$\frac{3}{4}$	1.630	$\frac{11}{4}$	4.527	$\frac{13}{4}$	8.873
$\frac{5}{16}$	.2829	$\frac{13}{16}$	1.913	$\frac{15}{16}$	4.991	$\frac{13}{16}$	9.518
$\frac{3}{8}$	.4074	$\frac{7}{8}$	2.218	$\frac{13}{8}$	5.478	$\frac{17}{8}$	10.19
$\frac{7}{16}$	.5546	$\frac{15}{16}$	2.546	$\frac{17}{16}$	5.987	$\frac{15}{16}$	10.88
$\frac{1}{2}$	.7243	1	2.897	$\frac{11}{2}$	6.519	2	11.59

Weights given in table are theoretically correct but variations must be expected in practice.

**Furnish Specifications, price will be quoted upon application**

# BRASS TUBING

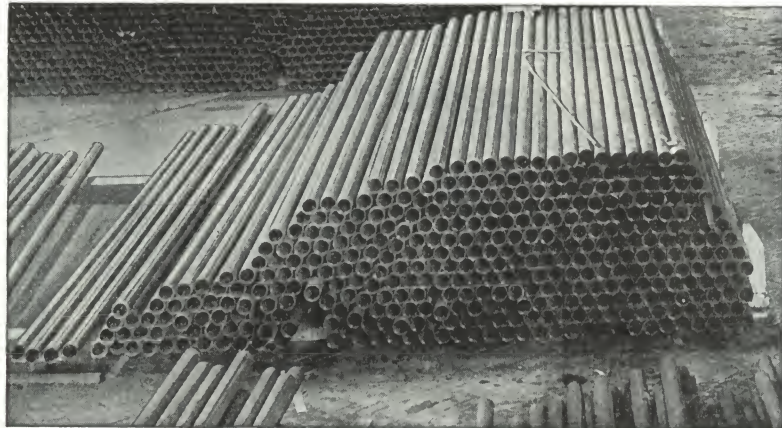


Fig. No. 3368

## Iron Pipe Sizes---Standard 12-Foot Lengths Carried in Stock

Iron Pipe Size	Diameter, Inches		Pounds, per foot	Iron Pipe Size	Diameter, Inches		Pounds, per foot	Iron Pipe Size	Diameter, Inches		Pounds, per foot
	Outside	Inside			Outside	Inside			Outside	Inside	
$\frac{1}{8}$	.405	.281	.246	$\frac{1}{2}$	.840	.625	.911	$\frac{11}{4}$	1.660	1.368	2.55
$\frac{1}{4}$	.540	.375	.437	$\frac{3}{4}$	1.050	.822	1.235	$\frac{11}{2}$	1.900	1.600	3.03
$\frac{3}{8}$	.675	.494	.612	1	1.315	1.062	1.740	2	2.375	2.062	4.01

Weights given in above table are theoretically correct but variations must be expected in practice.

Rule:—For estimating safe limit or bursting pressure for brass and copper tubing, in pounds per square inch. Multiply the safe pressure, 6,500 lbs., by thickness of metal in inches. Divide the result by  $\frac{1}{2}$  the outside diameter of tube expressed in inches. The result will be the safe pressure in pounds per square inch.

**Specify sizes, prices will be quoted upon application**

**SHEET BRASS—SHEET COPPER—BRONZE RODS—COPPER TUBING—BRAZED BRASS, BRONZE AND COPPER TUBING CAN BE FURNISHED PROMPTLY TO ORDER UPON RECEIPT OF SPECIFICATIONS AT RULING MARKET QUOTATIONS**



ALL BRASS EUREKA TUBULAR WELL CYLINDERS

With Poppet Plunger and Check Valves



Fig. No. 450M

This cylinder is made of seamless drawn brass tubing, and fitted with poppet plunger and check valves. It is set in place after the well is made, using the setting tool attached to the drill rod to crowd it down to its place. The dog spring coupling holds firmly to the walls of the inside of pipe or well casing, while the cylinder proper is revolved by the setting as it screws down on the coupling, expanding the rubber packing between the cylinder and coupling and locking it to the pipe. It may be attached to the screen point in the same manner. Printed directions for use sent with each cylinder.

LIST PRICES EACH

Size of Well, Inches	Inside Diameter, Inches	Stroke, Inches	Cylinder Complete, List Each
2	1 13/16	12	\$ 7.50
2	1 13/16	16	8.40
2 1/2	2 1/4	12	11.50
2 1/2	2 1/4	16	12.50
3	2 3/4	12	16.50
3	2 3/4	16	18.00
3 1/2	3	12	33.00
3 1/2	3	16	34.60
4	3 1/2	16	40.00
4	3 1/2	24	44.00

DISCOUNT 6% OFF

ALL BRASS EUREKA TUBULAR WELL CYLINDERS

With Bronze Ball Valves



Fig. No. 453M

This cylinder is made of seamless drawn brass tubing, fitted with four leather plunger, bronze ball valves. It is designed for use in deep wells where heavy work is performed, and where a large capacity is wanted. Complete with valves and spring dog coupling.

Please order by trade number.

LIST PRICES EACH

Size of Well, Inches	Inside Diameter of Cylinder, Inches	Stroke, Inches	Cylinder Complete, List Each
2	1 13/16	10	\$ 8.50
2	1 13/16	16	10.00
2 1/2	2 1/4	10	12.50
2 1/2	2 1/4	16	14.00
3	2 3/4	10	18.50
3	2 3/4	16	21.50
3 1/2	3	12	41.00
3 1/2	3	16	44.00
3 1/2	3	24	50.00
4	3 1/2	12	49.00
4	3 1/2	16	52.00
4	3 1/2	24	58.00

DISCOUNT 6% OFF



## WROUGHT IRON TUBULAR WELL CYLINDERS



Fig. No. 440M

Cylinders  
Only  
With  
or  
Without  
Driving  
Shoes



Fig. No. 441M

Fig. 440M, Cylinder Only, Not Lined

A polished tubular well cylinder made of galvanized or plain extra strong wrought iron pipe, bored and polished; they are furnished, unless otherwise specified, with shoulder for holding turned coupling for seating check valve; shoulders in 24 and 36 inch are three inches from bottom of cylinder, 48 inch lengths, 12 inches.

## WITH DRIVING SHOE—LIST EACH

Cylinder Diameter, Inches	Cylinder Length, Inches	Painted, List Each	Galvanized, List Each
2	24	\$3.25	\$3.80
2	36	\$4.25	\$4.80
2	48	\$5.25	\$5.80
2 1/2	36	\$7.15	\$7.80
2 1/2	48	\$8.90	\$9.55
3	36	\$9.80	\$10.55
3	48	\$12.30	\$13.05
4	36	\$15.00	\$16.75
4	48	\$18.00	\$20.50

## WITHOUT DRIVING SHOE—LIST EACH

Cylinder Diameter, Inches	Cylinder Length, Inches	Painted, List Each	Galvanized, List Each
2	24	\$2.25	\$2.80
2	36	3.25	3.80
2	48	4.25	4.80
2 1/2	36	5.75	6.40
2 1/2	48	7.50	8.15
3	36	8.00	8.75
3	48	10.50	11.25
4	36	12.00	13.75
4	48	15.50	17.50

Fig. 441M, Cylinder Only, Brass Lined

A galvanized tubular well cylinder, made of wrought-iron pipe bored out and a brass lining of seamless brass tubing inserted and swaged into position. Unless otherwise ordered this cylinder will be furnished with shoulder three inches from bottom as illustrated.

## WITH DRIVING SHOE—LIST EACH

Cylinder Diameter, Inches	Cylinder Length, Inches	Galvanized List Each
2	24	\$6.10
2	36	7.75
2	48	9.40
2 1/2	24	8.15
2 1/2	36	10.50
2 1/2	48	12.85
3	24	10.00
3	36	13.00
3	48	16.00
4	36	19.00
4	48	24.00

## WITHOUT DRIVING SHOE—LIST EACH

Cylinder Diameter, Inches	Cylinder Length, Inches	Galvanized List Each
2	24	\$5.25
2	36	6.90
2	48	8.55
2 1/2	24	7.00
2 1/2	36	9.35
2 1/2	48	11.70
3	24	8.50
3	36	11.50
3	48	14.50
4	36	16.50
4	48	21.50

Discount ..... 6% OFF

Price ..... LIST PLUS 10%



**ARTESIAN WELL BRASS CYLINDERS—With Bronze Ball Valves**

This all-brass Artesian well cylinder is designed and constructed for use in deepest wells and is most efficient for heavy work.

The body is made of heavy seamless brass tubing; valves are all-brass bronze ball extra heavy pattern and the plunger is fitted with four Black cup leathers; leather packer on check valve; the bottom of the plunger valve is tapped and may be screwed on top of check valve, enabling removal of both plunger and check valves with one operation, through the connecting pipe, which is larger in diameter than the bore of the cylinder.

Clearance of three inches, or more, is provided for operating at each stroke length specified.

Steel substitute is furnished with plunger valve.

Cylinder may be placed in open wells, and in drilled wells having pipe or casing large enough to admit the cylinder.

Greatest efficiency is obtained by placing cylinder at a location where it will be submerged.

Strainer may be connected to bottom coupling; both the top and bottom couplings are tapped with standard pipe threads.

**PLEASE SPECIFY INSIDE DIAMETER AND STROKE.**

**LIST PRICES EACH**

I. D. Inches	Stroke Inches	Barrel Length Inches	Capacity Each Stroke, Gallons	Top and Bottom Caps Tapped for Pipe Size Inches	Will Enter Standard Pipe Inches	Size Pin in Plunger Inches	Octagon Wood Rod Size Inches	Approximate Net Weight Each Pounds	LIST EACH
1-3/8	13	24	.083	1-1/2	2-1/2	5/8	1-7/8	6-1/2	\$9.60
1-3/8	19	30	.122	1-1/2	2-1/2	5/8	1-1/8	7	\$10.30
1-3/8	25	36	.160	1-1/2	2-1/2	5/8	1-1/8	7-1/2	\$11.00
1-3/4	10	24	.104	2	3	5/8	1-1/8	12	\$12.20
1-3/4	16	30	.167	2	3	5/8	1-1/8	13-1/2	\$13.10
1-3/4	22	36	.229	2	3	5/8	1-1/8	15	\$14.00
2-1/4	9	24	.155	2-1/2	3-1/2	7/8	1-5/8	16	\$18.00
2-1/4	15	30	.258	2-1/2	3-1/2	7/8	1-5/8	17-1/2	\$19.40
2-1/4	21	36	.361	2-1/2	3-1/2	7/8	1-5/8	19	\$20.80
2-1/4	27	42	.464	2-1/2	3-1/2	7/8	1-5/8	20-1/2	\$22.20
2-3/4	9	24	.180	3	4-1/2	7/8	1-5/8	22-1/2	\$24.40
2-3/4	15	30	.334	3	4-1/2	7/8	1-5/8	24	\$26.05
2-3/4	21	36	.488	3	4-1/2	7/8	1-5/8	25-1/2	\$27.70
2-3/4	27	42	.642	3	4-1/2	7/8	1-5/8	27	\$29.35
2-3/4	33	48	.797	3	4-1/2	7/8	1-5/8	28-1/2	\$31.00
3-1/4	9	30	.323	3-1/2	5	1	1-7/8	37-1/2	\$37.30
3-1/4	15	36	.538	3-1/2	5	1	1-7/8	40	\$39.45
3-1/4	21	42	.754	3-1/2	5	1	1-7/8	42-1/2	\$41.60
3-1/4	27	48	.969	3-1/2	5	1	1-7/8	45	\$43.75
3-1/4	33	54	1.185	3-1/2	5	1	1-7/8	47-1/2	\$45.90
3-3/4	15	36	.718	4	6	1-1/8	2-1/4	56-1/2	\$55.40
3-3/4	21	42	1.006	4	6	1-1/8	2-1/4	59-1/2	\$58.00
3-3/4	27	48	1.293	4	6	1-1/8	2-1/4	62-1/2	\$60.60
3-3/4	33	54	1.581	4	6	1-1/8	2-1/4	65-1/2	\$63.20
3-3/4	39	60	1.868	4	6	1-1/8	2-1/4	68-1/2	\$65.80
4-1/4	13	36	.797	4-1/2	6	1-1/8	2-1/4	71	\$78.60
4-1/4	19	42	1.165	4-1/2	6	1-1/8	2-1/4	74	\$82.10
4-1/4	25	48	1.533	4-1/2	6	1-1/8	2-1/4	77	\$85.60
4-1/4	31	54	1.900	4-1/2	6	1-1/8	2-1/4	80	\$89.10
4-1/4	37	60	2.268	4-1/2	6	1-1/8	2-1/4	83	\$92.60
4-3/4	11	36	.844	5	8	1-1/8	2-1/4	86	\$99.30
4-3/4	17	42	1.304	5	8	1-1/8	2-1/4	89-1/2	\$104.00
4-3/4	23	48	1.764	5	8	1-1/8	2-1/4	93	\$108.70
4-3/4	29	54	2.224	5	8	1-1/8	2-1/4	96-1/2	\$113.40
4-3/4	35	60	2.685	5	8	1-1/8	2-1/4	100	\$118.10
5-3/4	15	42	1.686	6	8	1-1/8	2-1/4	135	\$150.00
5-3/4	21	48	2.360	6	8	1-1/8	2-1/4	139	\$157.00
5-3/4	27	54	3.035	6	8	1-1/8	2-1/4	143	\$164.00
5-3/4	33	60	3.709	6	8	1-1/8	2-1/4	147	\$171.00
5 3/4	39	66	4.384	6	8	1-1/8	2-1/4	150	\$178.00

Fig. 448M

These cylinders will be furnished for well casing at price list for corresponding sizes. Intermediate sizes will take list of next larger size.

**DISCOUNT** ..... **3% OFF**



## ALL-BRASS FLUSH CAPS ARTESIAN WELL CYLINDER

Cylinder body made of seamless brass tubing. Caps, inside or flush, are brass castings, securely screwed to body. Threads in caps are standard pipe size. Valves are all brass, spring-controlled poppet type with non-corrosive metal springs; two Waterproof Frictionless cup leathers and red rubber poppet facing on plunger valve; and red rubber poppet facing on check valve. Clearance of three inches, or more, is provided for operating at each stroke length specified. Red rubber poppet facings are specially made for us, and valves with red rubber poppet facings are protected by registered trade mark. Please order by trade number, stating inside diameter and stroke.

I. D. Inches	Stroke Inches	Barrel Length Inches	Capacity Each Stroke Gallons	Caps Tapped for Pipe Inches	Will Enter Pipe Size Inches	Approximate Net Weight Each Pounds	LIST EACH
1-3/4	6	14	.063	1	2	4	\$6.30
1-3/4	8	16	.083	1	2	4-1/4	\$6.60
1-3/4	10	18	.104	1	2	4-1/2	\$6.90
1-3/4	12	20	.125	1	2	4-3/4	\$7.20
1-3/4	14	22	.146	1	2	5	\$7.50
2	6	14	.082	1-1/4	2-1/2	6-1/4	\$6.50
2	8	16	.109	1-1/4	2-1/2	6-3/4	\$6.80
2	10	18	.136	1-1/4	2-1/2	7-1/4	\$7.10
2	12	20	.163	1-1/4	2-1/2	7-3/4	\$7.40
2	14	22	.190	1-1/4	2-1/2	8-1/4	\$7.70
2-1/4	6	14	.103	1-1/4	2-1/2	7-1/4	\$6.80
2-1/4	8	16	.141	1-1/4	2-1/2	8	\$7.20
2-1/4	10	18	.176	1-1/4	2-1/2	8-3/4	\$7.60
2-1/4	12	20	.211	1-1/4	2-1/2	9-1/2	\$8.00
2-1/4	14	22	.246	1-1/4	2-1/2	10-1/4	\$8.40
2-1/2	6	14	.127	1-1/4	3	8	\$7.00
2-1/2	8	16	.170	1-1/4	3	8-3/4	\$7.40
2-1/2	10	18	.212	1-1/4	3	9-1/2	\$7.80
2-1/2	12	20	.234	1-1/4	3	10-1/4	\$8.20
2-1/2	14	22	.297	1-1/4	3	10-3/4	\$8.60
2-3/4	6	14	.154	1-1/4	3	9	\$7.40
2-3/4	8	16	.205	1-1/4	3	9-3/4	\$7.90
2-3/4	10	18	.257	1-1/4	3	10-1/4	\$8.40
2-3/4	12	20	.308	1-1/4	3	10-3/4	\$8.90
2-3/4	14	22	.360	1-1/4	3	11-1/4	\$9.40
3	6	14	.184	1-1/4	3-1/2	9-3/4	\$7.80
3	8	16	.245	1-1/4	3-1/2	10-1/2	\$8.30
3	10	18	.306	1-1/4	3-1/2	11-1/4	\$8.80
3	12	20	.367	1-1/4	3-1/2	12	\$9.30
3	14	22	.428	1-1/4	3-1/2	12-3/4	\$9.80
3-1/2	5	14	.250	2	4	16	\$9.00
3-1/2	7	16	.333	2	4	17	\$9.75
3-1/2	9	18	.416	2	4	18	\$10.50
3-1/2	11	20	.499	2	4	19	\$11.25
3-1/2	13	22	.582	2	4	20	\$12.00
4	5	14	.326	3	5	17-1/4	\$12.00
4	7	16	.435	3	5	18-1/4	\$13.00
4	9	18	.544	3	5	19-1/4	\$14.00
4	11	20	.653	3	5	20-1/4	\$15.00
4	13	22	.762	3	5	21-1/4	\$16.00

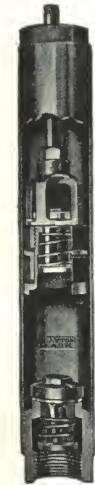
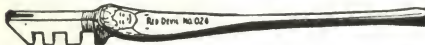


Fig. 444M

## DISCOUNT

6% OFF

"RED DEVIL"  
GLASS CUTTER

*"It's all in the wheel"*  
Fig. 3943

Mfrs. 024. New model. Long life wheel. Easy finger rest. Long reach head. Hand honed and tested. One dozen in a box.

Dozen Lots .....★ Net Dozen, \$ 1.50  
One Gross Lots..★ Net Gross, \$16.00  
Five Gross Lots..★ Net Gross, \$14.50

## STEEL LETTER AND FIGURE SETS

## BEST MACHINE MADE—ROMAN

Contains 27 letters and 9 figures in a set. Machine made. Made of steel. Roman characters. Used for marking brass, tin, zinc, aluminum, wood, leather and other surfaces that are not hardened. Each set in neat, strong wooden box.

Size, In.	List Each	Size, In.	List Each
1/16	\$ 6.00	3/16	\$ 8.00
3/32	6.00	1/4	10.00
1/8	6.00	5/16	12.00
3/16	7.00	3/8	14.00

DISCOUNT .....35% OFF

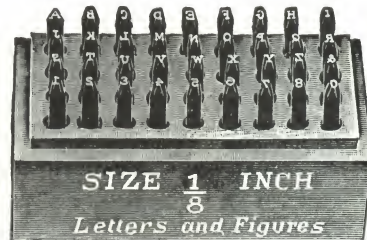


Fig. 3881

## STEEL LETTERS AND FIGURES FOR STAMPING

## LIST PRICES



Height, Inches	MACHINE MADE			HAND MADE		
	Figures 9 Pieces List per Set	Letters 28 Pieces List per Set	Single Pieces List Each	Figures 9 Pieces List per Set	Letters 28 Pieces List per Set	Single Pieces List Each
1/16	\$1.75	\$ 5.25	\$0.30	\$ 3.50	\$10.50	\$0.60
3/32	1.75	5.25	.30	3.50	10.50	.60
1/8	1.75	5.25	.30	3.50	10.50	.60
3/16	2.00	6.00	.35	4.00	12.00	.70
1/4	2.25	6.75	.35	4.50	13.50	.70
5/16	2.75	8.25	.40	5.50	16.50	.80
3/8	3.25	9.75	.45	6.50	19.50	.90
7/8	4.00	12.00	.55	8.00	24.00	1.10

Fig. No. 1746

Machine made extensively used on soft metals, leather or wood only. Hand made letters and figures made from hardened drawn tool steel and suitable for all kinds of high class stamping and marking on iron, steel and tools.

DISCOUNTS { Machine Made Sets .....35% OFF  
Hand Made Sets.....25% OFF  
Single Pieces .....LIST NET



DIRECTIONS FOR FASTENING CYLINDERS IN WELLS

To Seat Brass Working Barrel No. 651M

Attach seating tool No. 451M to the pump rod, insert it in the key way of well packer No. 495M, lower well to place where you wish to seat cylinder, turn pump rod to the right, which forces taper wedge into rubber ring, expands same and makes tight joint. Release seating tool and withdraw from well; remove seating tool. Take gum packer with brass attachment No. 496M and place it on outside of taper of cylinder; crowd it on the cylinder until it expands to size of well. Lower the cylinder (with gum packer and check valve) to place in well where well packer is

fastened and then drive cylinder firmly into gum packer. Unhook the valve hook and withdraw from well; remove the valve hook. Attach plunger valve to pump rod and lower into cylinder.

To Seat Eureka Cylinder No. 450M

Attach seating tool No. 451M to the drill rod. Then use the seating tool to revolve the cylinder and screw it down onto the spring dog coupling which will hold it firmly to the inside walls of the pipe or well casing. The rubber packing between the cylinder and the coupling is forced out against the pipe, making a firm, tight joint.

GUM PACKERS, WITH BRASS ATTACHED



Fig. No. 496M

For seating 651M cylinder.

LIST PRICES EACH

Diam. of Well Casing, Inches	List Each
2	\$ 2.40
2 1/2	3.50
3	4.50
3 1/2	5.60
4	7.00
4 1/2	8.40
5	10.00
6	14.70
8	16.80
10	22.40

PRICE ..... LIST PLUS 6%

SEATING TOOLS



Fig. No. 451M

For seating No. 450M cylinder.

LIST PRICES EACH

	List Each
For 2 inch cylinders.....	\$ 0.80
For 2 1/2 inch cylinders.....	1.20
For 3 inch cylinders.....	1.50
For 4 inch cylinders.....	2.70
For 5 inch cylinders.....	8.00
For 6 inch cylinders.....	10.00
For 8 inch cylinders.....	15.00

DISCOUNT ..... 10% OFF

WELL PACKERS

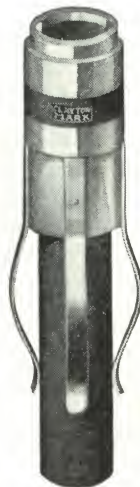


Fig. No. 495M

For making tight joint between strainer and well casing. Also used as support for cylinders Nos. 450M, 453M and 651M.

LIST PRICES EACH

Diam. of Well, Inches	Bottom of Packer Threaded for Pipe, Inches	LIST EACH
2	1 1/4	\$2.25
2 1/2	1 1/2	\$3.00
3	2	\$4.00
3 1/2	2	\$6.50
4	2 1/2	\$9.00
4 1/2	3	\$11.50
5	3 1/2	\$15.00
6	4	\$21.00
8	6	\$45.00

DISCOUNT ..... 10% OFF

ALWAYS  
USE  
ALLEN'S  
RED BOOK

WELL SEALS



Fig. No. 498M

For making tight joint between different sizes of pipe in wells. It is fitted with rubber packer on lower end, held in place by a loose washer. To make joint, force taper of seal into coupling or pipe, which expands rubber packer and makes tight joint.

LIST PRICES EACH

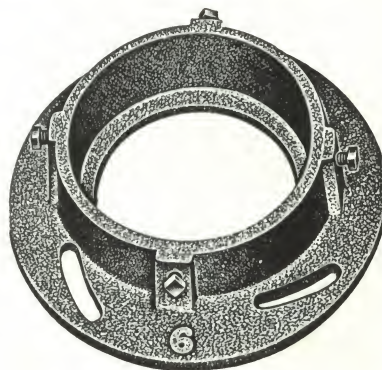
Diam. of Well, Inches	Tapped for Pipe, Inches	List Each
2	3/4	\$ 2.00
2 1/2	1	3.00
3	1 1/4	4.00
3 1/2	2	6.00
4	2 1/2	8.00
4 1/2	3	12.00
5	3 1/2	16.00
6	4	20.00
8	6	40.00

DISCOUNT ..... 18% OFF

PUMP STANDS OR FLOOR FLANGES

Fig. 2782

Simple but reliable base for the pump and pipe casing. Pump rests on the flat side of the flange and is solidly bolted in place. Pipe casing is then inserted in the opening at bottom and held in place by four square head cap screws.



For Pipe Tap, Inches

★ NET EACH

4	\$1.25
4 1/2	1.50
5	1.75
6	2.00



## TUBULAR WELL VALVES

Made heavy and strong and of best quality brass, carefully and well finished inside and out; fitted with best oak tan leathers.



Spring Valve Poppet  
Fig. 3724



Two Leather Plunger  
Fig. No. 460M



Two Leather Ball Plunger  
Fig. No. 470M



Four Leather Plunger  
Fig. No. 475M



Four Leather Ball Plunger  
Fig. No. 473M



Spring Poppet Check Valve  
Fig. 3725



Check  
Fig. No. 461M



Ball Check  
Fig. No. 471M



Bale Top Check  
Fig. No. 472M



Bale Top Ball Check  
Fig. No. 474M

## ★ NET EACH PIECE

Size, Inches	2	2-1/2	3	4	6
Check or 2 Leather	\$1.88	\$3.01	\$4.42	\$8.93	\$20.68
Four Leather	\$2.82	\$4.51	\$6.39	\$12.69	\$26.32

## ALL BRASS BRONZE BALL TUBULAR WELL VALVES

These valves are made for use in deep wells and where heavy service is required.



Two Leather Ball Plunger  
Fig. No. 485M



Ball Check  
Fig. No. 486M



Four Leather Ball Plunger  
Fig. No. 487M

## ★ NET EACH PIECE

Size, Inches	2	2-1/2	3	4
485M—2 Leather	\$2.35	\$3.76	\$5.64	\$14.10
486M—Ball Check	\$2.35	\$3.76	\$5.64	\$14.10
487M—4 Leather	\$3.29	\$5.64	\$8.00	\$19.75

## SPRING POPPET VALVE CHECK

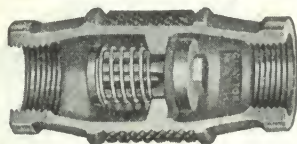


Fig. 3730

An all service, silent, positive Check Valve for water. Will work in horizontal or vertical position. Rubber to Brass Seat with All Brass Body.

Size Inches	Outside Diameter Inches	LIST EACH All Brass
3/8	1 1/8	\$0.80
1/2	1 3/8	\$1.00
3/4	1 5/8	\$1.20
1	1 7/8	\$1.60
1 1/4	2 1/4	\$2.00
1 1/2	2 3/4	\$3.00
2	3 1/8	\$4.50

DISCOUNT ..... 10% OFF

## SPRING POPPET CHECK VALVE

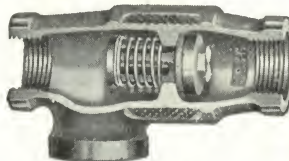


Fig. 3731

The Valve is the same as No. 3730, except that it has side outlet and a bleeder hole 1/8 inches. This Valve is a silent member of your water system.

Size Inches	Length Inches	LIST EACH All Brass
3/8	3 3/4	\$1.65
1/2	3 3/4	1.65
3/4	4 1/8	1.95
1	5	2.30
1 1/4	5 3/4	3.30
1 1/2	6 3/4	4.60
2	7 3/4	6.60

DISCOUNT ..... 10% OFF

## RUBBER PACKERS FOR TUBULAR WELL VALVES



For Valves Inches	LIST EACH
2	..... \$0.30
2-1/2	..... .50
3	..... .75
4	..... 2.00
6	..... 6.00

Fig. No. 703M

PRICE ..... PLUS 6%

## BRONZE VALVE BALLS

Fig. No. 870M

Turned from hard bronze metal and guaranteed to be perfectly true.

Diam. Inch	LIST EACH	Diam. Inch	LIST EACH
3/8	\$0.03-1/2	2-3/8	\$4.40
5/8	\$0.12-1/2	2-3/4	\$6.40
1 1/16	\$0.18	3	\$7.20
3/4	\$0.22	3-1/4	\$7.60
7/8	\$0.40	3-1/2	\$7.80
1	\$0.58	4	\$9.20
1-1/16	\$0.64	4-1/4	\$9.90
1-1/8	\$0.74	4-3/8	\$14.20
1-1/4	\$1.28	4-1/2	\$15.00
1-3/8	\$1.38	4-3/4	\$16.50
1-1/2	\$1.50	5-1/2	\$22.00
1-3/4	\$1.66	6	\$29.50
2	\$3.50	7-3/8	\$51.00
2-1/4	\$3.60		

DISCOUNT ..... 19% OFF

## BREMER TUBULAR WELL VALVES

One check valve and one plunger valve in set.



Plunger  
Fig. No. 478M



Check  
Fig. No. 479M



Check With Spring Do  
Fig. No. 481M

2 Inch

\$1.62

★ NET EACH

2 Inch

\$1.62

★ NET EACH

2 Inch

\$2.19

★ NET EACH

## SPRING POPPET CHECK VALVE WITH STRAINER

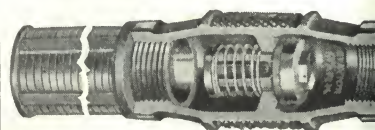


Fig. 3732

The Valve part of this is the same as No. 3730. One piece body, all brass. With seamless brass tubular strainer.

Size Inches	Outside Diameter Inches	LIST EACH Galvanized
3/8	1 1/8	\$1.30
1/2	1 3/8	\$1.50
3/4	1 5/8	\$1.80
1	1 7/8	\$2.20
1 1/4	2 1/4	\$3.00
1 1/2	2 3/4	\$4.50
2	3 1/8	\$6.60

DISCOUNT ..... 10% OFF



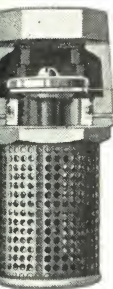
**"SURE TITE" FOOT VALVE AND STRAINER**

Fig. 049P

Perfectly finished brass seat. Brass poppet faced with rubber disc makes a perfect seating and an air tight joint. Guides and stop make poppet always seat properly. A ample waterway passage so as not to cause friction. Perforated sheet brass strainer having No. 8 holes. Closed bottom.

Outside Diam., In.	Length In.	List Each
2 3/8	5 3/4	\$1.35
2 3/4	5 3/4	1.35
2 3/4	5 3/4	1.80
2 3/8	6	2.10

DISCOUNT ..... 30% OFF

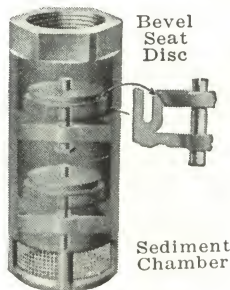
**DEPENDABLE DOUBLE POPPET FOOT VALVES**

Fig. No. 3581

**Type D.** For gasoline, kerosene, motor oils and fuel oils. Made of bronze valve metal, carefully machined, hand ground and tested. Steel seat and bevel disc, the best sign for gasoline-tight valves, preventing the lodging of foreign matter which might score the seats and cause leakage. Deep sediment chamber for each poppet. Removable strainer.

Outside Diam. In.	Motor Length In.	Weight Pounds	★NET EACH
1 1/2	4 3/4	1	\$2.80
3/4	5 1/8	2	3.15
1 1/4	5 1/8	2 1/2	3.80
1 1/4	5 7/8	3	4.90
1 1/2	6	4 1/2	6.10
2	6 1/4	4 7/8	8.00
2 3/4	8 1/4	10 3/4	21.00

**POPPET FOOT VALVES**

For gasoline, kerosene, motor oil, fuel oil, etc. Made of high grade brass. Constructed with a flat brass disc and seat arrangement. The discs are the only moving parts. Nothing to wear or break. Thoroughly tested.



Fig. 4369

**SINGLE POPPET**

Size Inch	★NET EACH
1	\$1.25
1 1/4	\$1.95
1 1/2	\$2.85
2	\$3.95

**DOUBLE POPPET**

Size Inch	★NET EACH
1 1/2	\$3.45
2	\$4.90

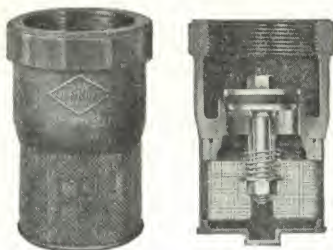
**JENKINS GASOLINE FOOT VALVE**

Fig. 4370

Absolutely drop-tight. Will not leak and remains tight. Gives correct gasoline delivery. Eliminates repairs. Vibration proof. One piece cast bronze body. Floating guide assists in proper seating. Phosphor bronze spring assists in seating and protects valve against vibrations. Cast bronze disc holder is machined true and concentric. Compounded disc. Fine mesh monel wire cloth strainer, riveted on. Cast bronze strainer cap.

Inches	List Each
1-1/2	\$9.10
2	\$10.20

DISCOUNT ..... 58% OFF

**BRASS FOOT VALVES WITH STRAINER**

Fig. 5168



For working pressures up to 200 pounds cold water or oil.  
\*\*Size of pipe valve will pass through.

Size Inch	End to End Inch	** Inch	LIST EACH
1/2	2 1/8	1	\$1.40
3/4	2 3/8	1 1/4	\$1.55
1	3 1/8	1 1/2	\$1.90
1 1/4	5	2	\$2.50
1 1/2	6 1/4	2 1/2	\$3.50
2	7 1/8	3	\$5.00
2 1/2	9	3 1/2	\$10.00
3	10 1/8	4	\$15.00

DISCOUNT ..... 36% OFF

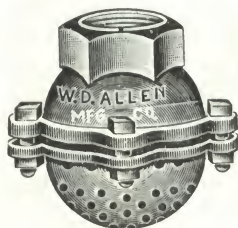
**IRON FOOT VALVES With Strainers**

Fig. No. 811

Size of Pipe, Inches	Black, List Each	Galvanized, List Each
3/4	\$ 1.15	\$ 1.75
1	1.30	2.00
1 1/4	1.40	2.10
1 1/2	1.90	2.85
2	2.40	3.60
2 1/2	3.30	5.00
3	3.90	5.75
3 1/2	5.60	8.50
4	7.30	11.00
5	11.25	16.75
6	14.75	22.00
7	35.00	53.00
8	41.00	62.00
10	64.00	110.00
12	100.00	155.00

DISCOUNT ..... 55-5% OFF

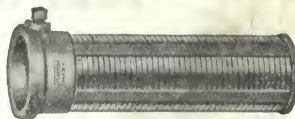
**SUCTION PIPE STRAINERS**

Fig. 554M. Connection is Malleable iron, with a V-slot, vertical groove, brass tube strainer.

**SPECIFY CONNECTION:** Set screw, as illustrated; or, female thread, as shown below.

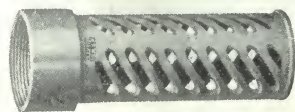


Fig. 556M. Made of Malleable iron, galvanized inside and outside.

**SPECIFY CONNECTION:** Female thread as illustrated; or, set screw as shown at top.

For Pipe Inches	Style 554M ★NET	Style 556M ★NET
1	\$0.55	\$0.40
1-1/4	\$0.63	\$0.43
1-1/2	\$0.71	\$0.47
2	\$0.99	\$0.72

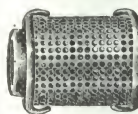
**BRASS STRAINERS****Gauze Covered**

Fig. No. 224 For Pipe



Fig. No. 223 For Hose Conn.

Size, Inches	Fig. No. 224, List per Doz.	Fig. No. 223, List per Doz.
3/4	\$ 4.80	\$ 4.80
1	4.80	4.80
1 1/4	6.75	6.75
1 1/2	8.60	8.60
2	11.50	11.50
2 1/2	20.00	20.00
3	26.00	26.00
3 1/2	28.00	28.00
4	30.00	30.00

DISCOUNT ..... 30% OFF

**SUCTION STRAINER**

Malleable iron, with cut female pipe thread.

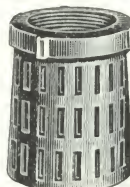


Fig. 826G

Size Inch	Black List Each	Galv. List Each
2 1/2	\$1.10	\$1.40
3	1.25	1.60
4	1.75	2.50

PRICE ..... LIST NET

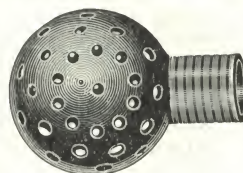
**2 IN. IRON GLOBE STRAINERS FOR HOSE**

Fig. No. 525M

Especially suitable for thresher tank hose.

★ NET EACH, \$0.75



## PURE OAK TANNED VALVE LEATHERS

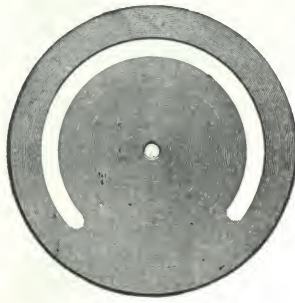


Fig. No. 700M

Made of oak tanned leather of uniform quality and thickness. Are suitable for ordinary well and cistern pumps. Be sure to specify which is desired. 1 doz. in box.



### ★ NET PRICES PER DOZEN

For Cylinder, Inches.....	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	4	4 1/2	5
Outside Diameter, Inches.....	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/2	5 1/4	5 3/4
★ NET DOZEN .....	\$0.80	\$1.00	\$1.16	\$1.38	\$1.50	\$1.80	\$2.00	\$2.62	\$3.30	\$4.40

## PURE OAK TANNED CUP LEATHERS

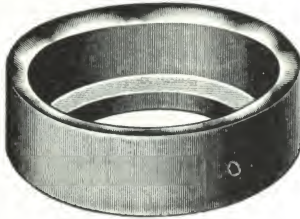


Fig. No. 702 M

Made of oak tanned stock. Will give dependable service under all ordinary conditions.



### ★ NET PRICES PER DOZEN

Size, Inch	★ NET DOZEN	Size, Inch	★ NET DOZEN	Size, Inch	★ NET DOZEN
1 .....	\$0.52	2-1/2 .....	\$1.80	3-3/4 .....	\$3.7
1-1/4 .....	\$0.65	2-3/4 .....	\$2.00	4 .....	\$4.2
1-1/2 .....	\$0.89	3 .....	\$2.25	4-1/4 .....	\$4.6
1-3/4 .....	\$1.17	3-1/4 .....	\$2.70	4-1/2 .....	\$5.1
2 .....	\$1.40	3-1/2 .....	\$3.30	5 .....	\$6.5
2-1/4 .....	\$1.48			6 .....	\$8.8

## BLACK EXTRA QUALITY CUP LEATHERS



Fig. No. 2146

This is a leather of special choice selection, treated with a preparation giving finest quality and great durability. Smooth black finish.

Size, Inch	★ NET DOZEN	Size, Inch	★ NET DOZEN
1 .....	\$0.80	3-3/4 .....	\$4.75
1-1/4 .....	\$1.02	4 .....	\$5.55
1-1/2 .....	\$1.21	4-1/4 .....	\$6.10
1-3/4 .....	\$1.37	4-1/2 .....	\$6.70
2 .....	\$1.82	4-3/4 .....	\$7.56
2-1/4 .....	\$2.05	5 .....	\$8.67
2-1/2 .....	\$2.17	5-1/4 .....	\$9.65
2-3/4 .....	\$2.58	5-1/2 .....	\$10.50
3 .....	\$2.90	5-3/4 .....	\$11.40
3-1/4 .....	\$3.32	6 .....	\$12.60
3-1/2 .....	\$3.80		

## TANK PUMP LEATHERS



Fig. No. 2145

Made from pure oak tanned solid stock, carefully selected.

### 5 INCH

★ Net Each 54¢

## LEATHER WASHERS



Fig. No. 816

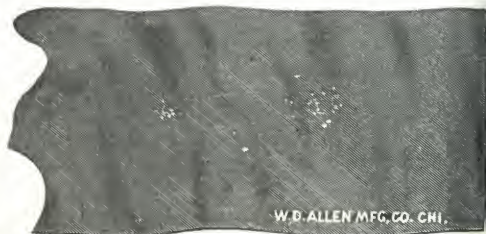
We are prepared to furnish leather washers of all sizes and diameters. Prices quoted on application.

## VALVE LEATHER

Fig. No. 815

Very closely trimmed, to be used with least possible waste; especially tanned for the purpose. From this especially prepared stock we manufacture leather gaskets of every description.

★ NET POUND, \$1.25





# **GALVANIZED TANKS**

**PIPE TOP TANKS:** Prime galvanized sheets are used throughout. The bottoms are in **Double Strap** construction, the side sheet being flanged and placed on top of the bottom sheet, after which two  $\frac{3}{16} \times \frac{3}{4}$  inch steel bands, closely riveted, are placed above and below the joint. All seams are then thoroughly treated with solder, and are made absolutely water tight.

**Bottoms up to 4 feet are made of one sheet.** There are no patch seams. Sides of the tank are likewise made of one sheet, the top being formed over a  $\frac{3}{8}$  inch

pipe, and rolled smoothly into shape. Top of tank at joint has an inserted plug, making a fast connection. Over the joint we place a malleable fitting covering both the joint and seam strap. This special type of construction leaves no chance for rough edges to injure stock or rust to accumulate.

**ANGLE TOP TANKS:** Construction identical to pipe top tanks, with the exception that the tops are reinforced with  $\frac{1}{2} \times 1$  inch angle instead of the rolled edge.

## **ROUND END STOCK TANKS**



Fig. No. 3158—Pipe Top

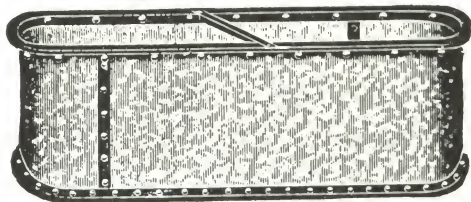


Fig. No. 835—Angle Top

Either type in guaranteed expert construction from prime quality, No. 20 gauge **Galvanized Steel**; no seconds. When ordering, be sure to specify **Pipe Top** or **Angle Top**, or simply write the correct prefix with number, thus: **PTRE**—meaning Pipe Top Round End, or **ATRE**—Angle Top Round End. The number following corresponds to the size of tank required, thus, No. 224 being a 2 x 2 x 4 feet.

### **LIST PRICES EACH**

No.	Width, Feet	Height, Feet	Length, Feet	Cap. Bbls.	Wt. Lbs.	List Each
224	2	2	4	3 $\frac{3}{4}$	52	\$12.60
225	2	2	5	3 $\frac{3}{4}$	61	15.20
226	2	2	6	4 $\frac{1}{2}$	75	17.70
227	2	2	7	5 $\frac{1}{2}$	87	20.30
228	2	2	8	6 $\frac{1}{4}$	97	22.80
210	2	2	10	8	120	27.90
2525	2 $\frac{1}{2}$	2	5	4 $\frac{3}{4}$	66	17.00
2526	2 $\frac{1}{2}$	2	6	5 $\frac{3}{4}$	80	19.80
2527	2 $\frac{1}{2}$	2	7	7	91	22.70
2528	2 $\frac{1}{2}$	2	8	8	103	25.50
210	2 $\frac{1}{2}$	2	10	10 $\frac{1}{4}$	127	31.20
326	3	3	6	7	92	21.80
328	3	3	8	9 $\frac{1}{2}$	117	28.10
210	3	3	10	12 $\frac{1}{4}$	146	34.40
428	4	4	8	12 $\frac{3}{4}$	147	32.40
212	4	4	10	16 $\frac{1}{4}$	170	39.30
216	4	4	12	20	200	46.50
216	4	4	16	27 $\frac{1}{4}$	280	60.30
216	5	5	16	33 $\frac{3}{4}$	310	68.40
210	6	2	10	23 $\frac{3}{4}$	225	50.40
216	6	2	16	41	375	76.40

For 18 gauge, add 30% to list; 16 gauge, 60%; 14 gauge, 90%.

**DISCOUNT PIPE TOP NO. 3158.....45% OFF**  
**DISCOUNT ANGLE TOP NO. 835.....50% OFF**

## **SQUARE END TANKS**

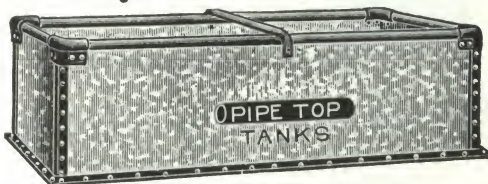


Fig. No. 3159—Pipe Top

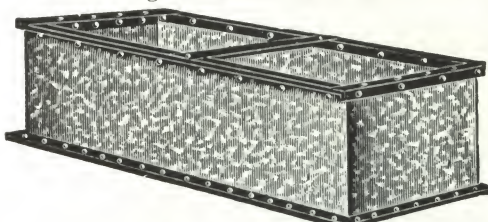


Fig. No. 841—Angle Top

Either type in guaranteed expert construction from prime quality, No. 20 gauge **Galvanized Steel**; no seconds. When ordering, be sure to specify **Pipe Top** or **Angle Top**, or simply write the correct prefix with number, thus: **PTSE**—meaning Pipe Top Square End, or **ATSE**—Angle Top Square End. The number following corresponds to the size of tank required, thus: No. 224 being a 2 x 2 x 4 foot.

### **LIST PRICES EACH**

No.	Width, Feet	Height, Feet	Length, Feet	Cap. Bbls.	Wt. Lbs.	List Each
224	2	2	4	3 $\frac{3}{4}$	90	\$17.80
225	2	2	5	4 $\frac{3}{4}$	105	21.10
226	2	2	6	5 $\frac{3}{4}$	120	24.50
228	2	2	8	7 $\frac{3}{4}$	150	31.10
2210	2	2	10	9 $\frac{3}{4}$	180	37.70
2254	2	2 $\frac{1}{2}$	4	4 $\frac{3}{4}$	130	19.80
2256	2	2 $\frac{1}{2}$	6	7	150	27.60
2258	2	2 $\frac{1}{2}$	8	9 $\frac{1}{2}$	160	35.40
22510	2	2 $\frac{1}{2}$	10	11 $\frac{1}{2}$	190	43.20
2524	2 $\frac{1}{2}$	2	4	4 $\frac{3}{4}$	100	19.90
2525	2 $\frac{1}{2}$	2	5	5 $\frac{3}{4}$	120	23.70
2526	2 $\frac{1}{2}$	2	6	7	130	27.30
2528	2 $\frac{1}{2}$	2	8	9 $\frac{1}{2}$	160	34.70
25210	2 $\frac{1}{2}$	2	10	11 $\frac{3}{4}$	180	41.00
25254	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4	5 $\frac{3}{4}$	100	23.40
25256	2 $\frac{1}{2}$	2 $\frac{1}{2}$	6	8 $\frac{3}{4}$	150	32.00

For No. 18 gauge, add 30% to list; No. 16 gauge, 60%; No. 14 gauge, 90%.

**DISCOUNT NO. 3159 PIPE TOP.....45% OFF**  
**DISCOUNT NO. 841 ANGLE TOP.....50% OFF**

## **THRESHER WAGON TANKS**

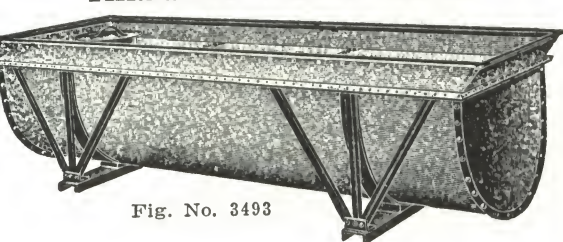


Fig. No. 3493

### **LIST PRICES EACH**

No.	Wth. Feet	Hgt. Feet	Lgt. Feet	Cap. Bbls.	List Each 20-GA	List Each 18-GA	List Each 16-GA
BW 226	2	2	6	4 $\frac{1}{2}$	\$39.60	\$51.48	\$63.36
BW 228	2	2	8	6	45.50	59.15	72.80
BW 2528	2 $\frac{1}{2}$	2	8	7 $\frac{1}{2}$	51.50	66.95	82.40
BW25210	2 $\frac{1}{2}$	2	10	9 $\frac{1}{2}$	59.40	77.22	95.04
BW 328	3	2	8	9	56.80	73.84	90.88
BW 3210	3	2	10	11 $\frac{1}{4}$	66.30	86.19	106.08
BW32510	3	2 $\frac{1}{2}$	10	14 $\frac{1}{2}$	71.30	92.69	114.08

**DISCOUNT .....35% OFF**

## **FLAT BOTTOM WAGON TANKS**

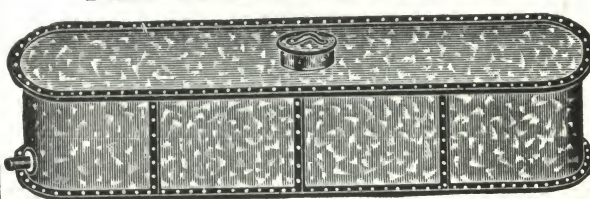


Fig. No. 3156

### **LIST PRICES EACH**

No.	Wth. Feet	Hgt. Feet	Lgt. Feet	Cap. Bbls.	List Each 20-GA	List Each 18-GA	List Each 16-GA
REW 226	2	2	6	4 $\frac{1}{2}$	\$36.00	\$46.80	\$57.60
REW 228	2	2	8	6 $\frac{1}{4}$	41.40	53.82	66.24
REW 2528	2 $\frac{1}{2}$	2	8	8	46.80	60.84	74.88
REW25210	2 $\frac{1}{2}$	2	10	10 $\frac{1}{4}$	54.00	70.20	86.40
REW 328	3	2	8	9 $\frac{1}{2}$	53.20	69.16	85.12
REW 3210	3	2	10	12 $\frac{1}{4}$	58.60	76.18	93.76
REW32510	3	2 $\frac{1}{2}$	10	15	64.80	84.24	103.68

**DISCOUNT .....35% OFF**



## ROUND STOCK TANKS—Pipe Top and Angle Top

Either type is guaranteed expert construction from prime quality, No. 20 gauge Galvanized Steel; no seconds.



Fig. No. 3160—Pipe Top

When ordering, be sure and specify Pipe Top or Angle Top, or simply write the correct prefix with number, thus: PTR—meaning Pipe Top Round, or

## LIST PRICES EACH

No.	Diam. Feet	Ht. Feet	Cap. Bbls.	Wt. Lbs.	List Each
31	3	1	1½	45	\$10.80
315	3	1½	2¼	53	11.60
32	3	2	3	61	12.30
325	3	2½	3¾	70	15.50
33	3	3	4½	77	17.50
352	3½	2	4	75	14.00
3525	3½	2½	5	84	17.70
353	3½	3	5	93	20.00
42	4	2	5	92	15.80

DISCOUNT PIPE TOP TANKS.....45% OFF

For No. 18 gauge, add 30% to list; No. 16 gauge, add 60%; No. 14 gauge, add 90%.

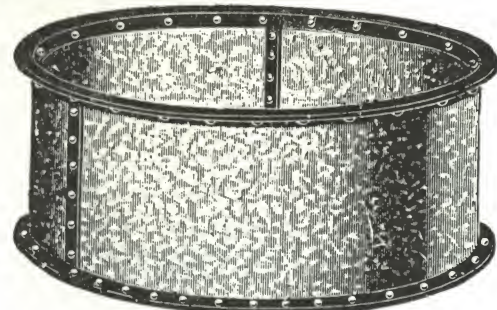


Fig. No. 836—Angle Top

ATR—Angle Top Round. The number following c responds to the size of tank required, thus, No. being a 3 x 1 feet, or No. 315 being a 3 x 1½ feet.

## LIST PRICES EACH

No.	Diam. Feet	Ht. Feet	Cap. Bbls.	Wt. Lbs.	List Each
425	4	2½	6¾	102	\$19.50
43	4	3	8	115	22.50
452	4½	2	7	96	17.50
4525	4½	2½	8¾	108	23.50
453	4½	3	10½	119	25.50
52	5	2	8½	113	20.50
525	5	2½	10¾	126	25.50
53	5	3	13	139	28.50
552	5½	2	10½	127	23.50

DISCOUNT ANGLE TOP TANKS.....50% OFF

## ROUND STORAGE TANKS

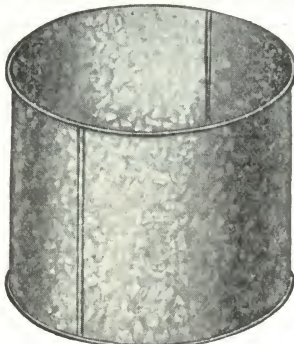


Fig. No. 842

Constructed from No. 20 gauge prime galvanized steel in all sizes up to 6 x 8 feet inclusive. For larger sizes, up to and including 8 x 8 feet, we recommend No. 18 gauge; and for 8 x 10 feet and larger, No. 16 gauge or heavier. List-prices are based on No. 20 gauge. For No. 18 gauge, add 30% to list; for No. 16 gauge, add 60%; No. 14 gauge, add 90%.

Sizes larger than 6 x 8 feet are shipped knocked down, unless otherwise ordered. All K. D. tanks are carefully tested, inspected, and plainly marked for rapid and convenient assembly.

## LIST PRICES EACH

No.	Diam. Feet	Depth Feet	Cap. Bbls.	Wt. Lbs.	List Each
43	4	3	8	115	\$ 20.40
44	4	4	10¾	165	32.30
45	4	5	13½	191	38.50
46	4	6	16½	217	44.80
47	4	7	19	250	51.00
48	4	8	21¾	274	57.20
410	4	10	27¼	297	69.70
54	5	4	17¼	204	41.00
55	5	5	21¾	224	48.70
56	5	6	26	244	56.20
57	5	7	30¼	277	63.90
58	5	8	34¾	316	71.70
65	6	5	31½	310	66.60
66	6	6	38	349	78.50
68	6	8	53	435	96.40
86	8	6	71½	580	113.50
88	8	8	95¼	693	139.30
S 810	8	10	119¼	813	165.00
S 108	10	8	149	838	183.20
S 1010	10	10	186½	1029	214.50

DISCOUNT .....40% OFF

## HOUSE TANKS—Galvanized



Fig. No. 843

The sides and bottom are double seamed together; all seams locked and thoroughly soldered. The top is surrounded by heavy wire except the 30 inch tanks and larger, the latter being reinforced with 1 inch angle.

## LIST PRICES EACH

No.	Diam. Feet	Depth Feet	Cap. Gals.	Wt. Lbs.	List Each
H 152	1½	2	25	20	\$ 7.80
H 22	2	2	42	26	8.90
H 225	2	2½	53	35	9.80
H 252	2½	2	67	34	12.40
H 2525	2½	2½	84	40	13.70
H 253	2½	3	101	50	15.10
H 254	2½	4	133	60	17.90

DISCOUNT .....40% OFF

## TROUGH AND PANS

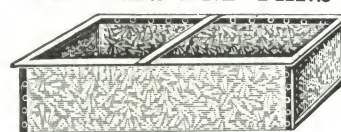


Fig. No. 840

Adapted for Sap Pans, Milk, Watering or Feed Troughs. Well made and constructed from No. 20 gauge galvanized prime steel.

## LIST PRICES EACH

No.	Wdth. Feet	Hght. Feet	Lgth. Feet	Cap. Gals.	Wgt. Lbs.	List Each
P114	1	1	4	29	39	\$ 11.50
P115	1	1	5	37	42	12.50
P118	1	1	8	59	55	15.50
P1110	1	1	10	74	68	18.50
P1154	1	1½	4	44	35	11.50
P1155	1	1½	5	56	45	13.50
P1158	1	1½	8	89	55	15.50
P11510	1	1½	10	112	65	18.50
P1514	1½	1	4	44	42	11.50
P1515	1½	1	5	56	65	13.50
P1518	1½	1	8	89	50	15.50
P15110	1½	1	10	112	60	18.50
P15154	1½	1½	4	67	50	11.50
P15155	1½	1½	5	84	60	13.50
P15158	1½	1½	8	134	70	21.50
P151510	1½	1½	10	168	80	24.50
P214	2	1	4	59	70	11.50
P215	2	1	5	74	76	13.50
P218	2	1	8	119	87	15.50
P2110	2	1	10	149	120	21.50

For No. 18 gauge, add 30%; for No. 16 gauge, 60%; for No. 14 gauge, 90%.

DISCOUNT .....40% OFF

## HOG TROUGH

Fig. No. 2142  
Not Illustrated

Metal ends; cross bars every 12 inches reinforced with steel angle on top of each end. Center brace.

No.	Wdth. In.	Ht. In.	Lgth. Feet	Wt. Lbs.	List Each
62	12	5	2	8	\$2.00
64	12	5	4	14	3.00
66	12	5	6	19	4.50
68	12	5	8	25	5.80
70	12	5	10	31	6.80

DISCOUNT .....40% OFF

Fig. No. 3492—As Illustrated

## Angle Top Hog Troughs

No.	Wdth. Ins.	Hgt. Ins.	Lgth. Feet	Cap. Gals.	Wgt. Lbs.	List Each
897	14	7	2	6	18	\$3.50
899	14	7	4	12	28	5.50
902	14	7	6	18	36	7.50
904	14	7	8	24	46	9.50
903	14	7	10	30	52	11.50

DISCOUNT .....40% OFF



## DIPPING TANKS

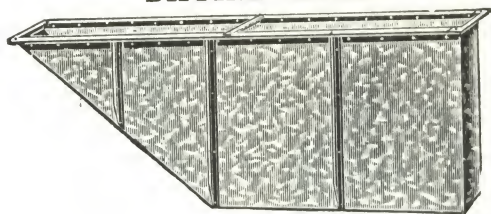


Fig. No. 839

No. 20 gauge galvanized prime steel.

Height Inches	Length Top Feet	Length Bottom Feet	Width Top Inches	Width Bottom Inches	Estimated Weight	List Each
36	6	3	24	12	75	\$26.00
36	8	4	24	12	85	30.00
42	8	4	24	12	115	33.00
36	10	5	24	12	200	37.00
42	10	5	24	12	230	38.00
48	8	4	24	12	175	36.00
48	10	5	24	12	215	40.00
48	14	10	24	12	340	76.00
48	15	10	24	12	370	84.00
48	20	15	24	12	525	120.00
48	25	20	24	12	670	150.00
DISCOUNT .....						35% OFF

## SANITARY WASH SINKS

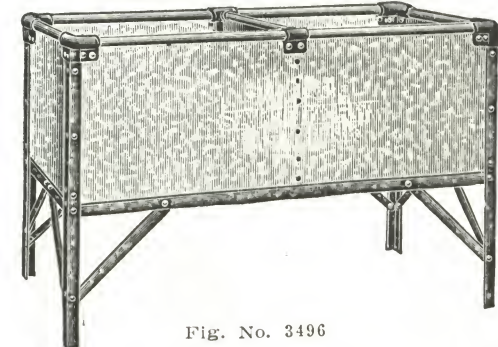


Fig. No. 3496

Extra heavy construction. Sides and ends are rolled over a 3/8 inch pipe, with end of sheet on outside, making sink perfectly smooth at top on inside. Corners are fitted with galvanized malleable castings. Legs, 1/4 inch galvanized angle iron braced. Has partition in center.

	Width Inches	Length Inches	Height Inches	List Each
S1	24	48	16	\$44.00
S2	30	60	16	52.00
DISCOUNT . . . . . 30%				OFF

## POULTRY TROUGHS

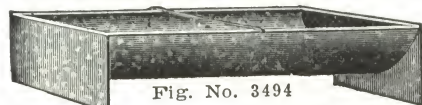


Fig. No. 3494

### LIST PRICES EACH

	Width Inches	Height Inches	Length Inches	Gauge	Weight Pounds	List Each
40	4	2	30	26	3	\$1.00
36	6	3	36	26	4	1.10
36	7	3½	36	26	5	1.20
DISCOUNT .....					40 %	OFF

## SQUARE END WOOD STOCK TANKS

These tanks are grooved and tongued together, the ends grooved into the sides and bottom. They are bolted through the ends from side to side, and from top to bottom. All 2 feet high. Dimensions in Feet.

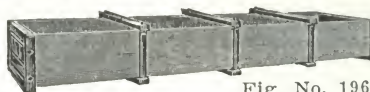


Fig. No. 1961

### LIST PRICES EACH

Width, Feet	Length, Feet	Cap. Bbls.	Wt. Lbs.	List Each	Width, Feet	Length, Feet	Cap. Bbls.	Wt. Lbs.	List Each
2	4	4	100	\$16.60	3	12	16	340	\$42.60
2	5	5	125	20.20	4	8	15	290	42.60
2	6	6	150	23.40	4	10	19	350	45.20
2 1/2	4	5	115	20.50	4	12	22	410	53.20
2 1/2	5	6	135	23.50	4	14	26	490	64.00
2 1/2	6	7	165	26.40	4	16	30	540	70.00
3	4	6	125	23.50	5	12	25	550	64.00
3	5	7	150	26.40	5	14	32	590	71.80
3	6	9	180	29.30	5	16	35	630	77.20
3	8	12	220	33.90	6	12	32	610	71.80
3	10	14	300	37.50	6	14	39	650	83.10
					6	16	45	690	87.90

DISCOUNT	1-1/2 Inch Cypress .....	24% OFF
	1-1/2 Inch Redwood .....	29% OFF
	1-1/2 Inch Fir .....	30% OFF
	2 Inch Cypress .....	2% OFF
	2 Inch Redwood .....	7% OFF
	2 Inch Fir .....	19% OFF

## HALF ROUND WOOD STOCK TANKS



Fig. No. 1960

### LIST PRICES EACH

Made of good lumber and joined with great care. Hoops are made of flat or round steel as ordered, but flat hoops will be shipped unless other- wise specified. Cross pieces of substantial oak.	Depth, In.	Width, Feet	Length, Feet	Cap. Bbls.	Wt. Lbs.	List Each
	18	3	6	4 1/4	120	\$22.50
	18	3	8	6	150	25.40
	18	3	10	7 3/4	180	30.24
	21	3 1/2	10	10	240	37.00
	24	4	10	13 1/2	280	42.50
	18	3	12	9 1/2	250	36.60
	21	3 1/2	12	12 3/4	300	40.00
	24	4	12	16 3/4	340	50.85
	18	3	14	11	285	43.00
	21	3 1/2	14	15	340	48.50
	24	4	14	19 1/2	390	56.00
	21	3 1/2	16	17 1/2	370	55.00
	24	4	16	22 3/4	400	66.75

DISCOUNT	1-1/2 Inch Cypress .....	33% OFF
	1-1/2 Inch Redwood .....	38% OFF
	1-1/2 Inch Fir .....	41% OFF
	2 Inch Cypress .....	3% OFF
	2 Inch Redwood .....	25% OFF
	2 Inch Fir .....	29% OFF

## SQUARE-END CYPRESS WAGON TANKS



Fig. No. 2634

These tanks are made of the very best 1 1/2 inch cypress. They are bolted through the ends from side to side, and from top to bottom in center and ends, have cross pieces of oak both top and bottom, and are supplied with a 1 1/2 inch matched cover.

### LIST PRICES EACH

Depth, In.	Width, In.	Length, Ft.	Cap., Bbls.	List Each
20	38	12	12	\$47.00
22	38	12	13 1/2	54.00
24	38	12	15	57.00

PRICE.....LIST PLUS 5%

## HALF ROUND WATERING TROUGHS

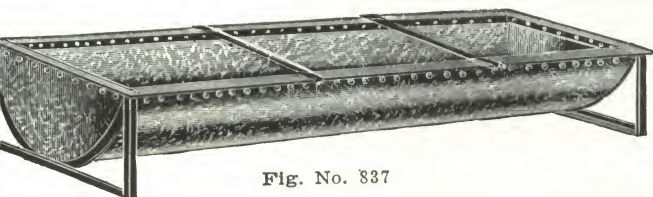


Fig. No. 837

### LIST PRICES EACH

No.	Width Inches	Height Inches	Length Feet	Capacity Barrels	Weight Pounds	List Each
903 1/2	20	10	6	1 1/4	50	\$10.00
904	20	10	8	1 3/4	60	12.00
905	20	10	10	2	75	14.00
908	26	13	8	3	71	17.00
909	26	13	10	3 3/4	101	20.00
912	36	18	8	6	118	25.00
913	36	18	10	7 1/2	137	28.00

DISCOUNT .....



## CYPRESS, REDWOOD AND FIR TANKS

We can furnish tanks of Cypress known as the "Wood Eternal." It is not only noted for its great durability, but it is distinguished by many other properties which make it the ideal wood for tanks. It is especially suited for tanks that are to contain cider, vinegar, extracts, medicines or any preparation that would be contaminated by any taint from the wood.

California Redwood has proven to be one of the best materials for tanks and will give years of service.

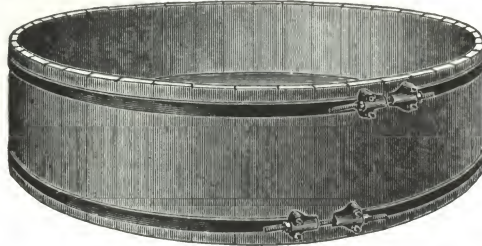
Fir is a satisfactory material for tanks and can be used for water, liquids, or the storage of pickles, sauerkraut, etc.

All our tanks are well made and if properly set up, will not leak. They are furnished with round hoops fitted with malleable iron lugs. The capacities below are based on tanks with straight staves. Prices below do not include covers. Weights given below are for 1-1/2 inch tanks only. Add 25% for weights on 2 inch Cypress, Redwood or Fir Tanks.

### Instructions for Ordering

Give number of tank, length of stave, diameter of bottom, kind and thickness of lumber, also whether round or flat hoops are wanted.

All tanks are shipped knocked down unless otherwise ordered. Prices below include staves, bottoms, dowel pins, hoops with lugs, etc., but not covers.



### ROUND TANKS FOR GENERAL USE

FIG. No. 1959

#### LIST PRICES PER TANK

No.	Length of Stave, Ft.	Bottoms, Outside Diam. Ft.	No. of Hoops	Cap., Bbls.	Wt., Lbs.	List Each	No.	Length of Stave, Ft.	Bottoms, Outside Diam. Ft.	No. of Hoops	Cap., Bbls.	Wt., Lbs.	List Each
103	2	3	2	2.0	110	\$ 11.65	206	2 1/2	6	2	13.7	300	\$ 32.80
103B	2	3 1/2	2	3.0	140	13.90	207	2 1/2	7	2	18.9	375	39.80
104	2	4	2	4.9	150	16.90	208	2 1/2	8	2	24.8	450	47.00
105	2	5	2	7.0	200	23.20	209	2 1/2	9	2	31.5	525	61.00
105B	2	5 1/2	2	10.0	250	25.05	210	2 1/2	10	2	39.1	625	73.00
106	2	6	2	10.6	260	29.40	212	2 1/2	12	2	55.2	800	105.00
107	2	7	2	14.5	325	36.30	214	2 1/2	14	3	76.0	1150	139.70
108	2	8	2	19.0	400	43.40	216	2 1/2	16	3	94.0	1300	175.00
109	2	9	2	24.3	475	50.60	305	3	5	3	14.0	300	32.20
110	2	10	2	30.0	550	60.90	306	3	6	3	17.0	340	42.35
112	2	12	2	41.2	700	77.70	307	3	7	3	25.0	400	57.70
114	2	14	2	59.0	930	112.00	308	3	8	3	30.0	500	60.00
116	2	16	2	80.0	1175	145.00	309	3	9	3	37.0	610	70.00
204	2 1/2	4	2	5.9	200	19.30	310	3	10	3	45.0	800	82.00
205	2 1/2	5	2	9.4	230	26.40	312	3	12	3	69.0	980	112.00
							314	3	14	3	92.0	1270	145.00

### DISCOUNT

Made of	1-1/2 Inch	2 Inch
Cypress	37% OFF	18% OFF
Redwood	43% OFF	32% OFF
Fir	45% OFF	37% OFF



Fig. No. 1958

Round Storage or Cistern Tanks

### MALLEABLE IRON TANK LUGS

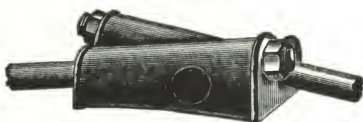


Fig. No. 3393

Side pull fastener for round iron. Use on tanks, vats, silos, etc.

#### ★ NET PRICES PER 100

Ins.	Net	Ins.	Net	Ins.	Net
100	\$10.00	3/4	\$20.00	1 1/4	\$55.00
1/2	12.00	7/8	33.00	1 1/2	70.00
5/8	15.00	1	36.00	1 3/4	100.00

### ROUND STORAGE OR CISTERN TANKS—Fig. 1958

#### LIST PRICES PER TANK

No.	Length of Stave, Ft.	Bottoms, Outside Diam. Ft.	No. of Hoops	Cap., Bbls.	Wt., Lbs.	List Each	No.	Length of Stave, Ft.	Bottoms, Outside Diam. Ft.	No. of Hoops	Cap., Bbls.	Wt., Lbs.	List Each
404	4	4	4	9.8	250	\$ 27.30	810	8	10	7	136.8	1250	\$155.90
405	4	5	4	15.6	350	36.80	812	8	12	7	190.0	1500	192.10
406	4	6	4	22.0	390	48.50	906	9	6	7	53.0	890	91.00
407	4	7	4	31.0	550	59.00	908	9	8	7	98.2	1085	131.20
408	4	8	4	40.0	600	64.80	909	9	9	7	124.9	1245	147.80
409	4	9	4	50.0	750	80.00	910	9	10	7	150.0	1520	172.00
410	4	10	4	64.0	800	91.00	1004	10	4	8	25.0	540	66.50
504	5	4	4	12.0	280	33.75	1006	10	6	8	59.0	740	98.00
505	5	5	4	20.0	400	44.40	1007	10	7	8	82.8	1000	124.70
506	5	6	4	25.2	500	52.80	1008	10	8	8	109.6	1200	143.60
507	5	7	4	40.0	600	64.80	1009	10	9	8	141.5	1350	163.70
508	5	8	4	52.4	725	75.60	1010	10	10	8	172.8	1550	189.60
509	5	9	5	65.0	920	95.00	1012	10	12	8	215.0	1850	225.80
510	5	10	5	82.0	1100	112.00	1014	10	14	8	330.0	2300	330.00
604	6	4	4	14.0	330	37.50	1016	10	16	9	434.0	2600	363.00
605	6	5	4	23.0	500	51.00	1208	12	8	9	132.5	1400	172.30
606	6	6	5	35.4	550	63.70	1210	12	10	9	208.9	1775	214.40
607	6	7	5	48.6	700	75.20	1212	12	12	9	253.6	2000	258.10
608	6	8	5	63.9	800	87.90	1214	12	14	10	391.0	2700	349.00
609	6	9	5	78.0	900	107.75	1216	12	16	10	514.0	4000	410.00
610	6	10	5	98.0	1000	126.00	1412	14	12	12	333.0	3250	323.85
612	6	12	5	140.0	1260	161.50	1414	14	14	13	458.0	3600	404.00
705	7	5	5	28.0	550	61.00	1416	14	16	14	603.0	4000	472.00
706	7	6	5	41.0	600	70.00	1614	16	14	15	525.0	4400	460.00
707	7	7	6	57.3	800	85.80	1616	16	16	15	692.0	5200	530.00
708	7	8	6	75.3	900	99.70							
709	7	9	6	92.0	1000	125.00							
710	7	10	6	118.0	1100	139.00							
712	7	12	6	170.0	1400	180.00							
806	8	6	6	48.1	725	79.70							
807	8	7	6	66.0	825	93.80							
808	8	8	6	86.5	1000	117.50							
809	8	9	6	110.4	1145	132.90							

Weights given on tanks larger than 10 by 10 feet are for 2 inch material, these large sizes are not made with 1 1/2 inch material. Write for price of any tank not mentioned in list.

#### DISCOUNT—Nos. 404-809

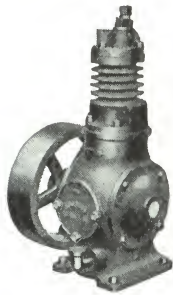
Made Of	1-1/2 Inch	2 Inch
Cypress	38% OFF	13% OFF
Redwood	43% OFF	31% OFF
Fir	44% OFF	37% OFF

#### DISCOUNT—Nos. 810-1616

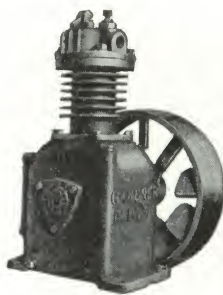
2 Inch Cypress	13% OFF
2 Inch Redwood	31% OFF
2 Inch Fir	35% OFF



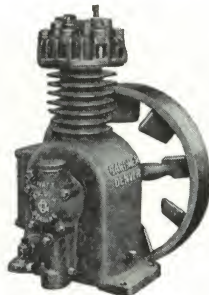
GARDNER-DENVER AIR-COOLED COMPRESSORS



Size 2x1 1/4



Sizes 2x2 1/2 and 2 1/2 x3



Size 3x3 1/2

Fig. 3973. With Tight Pulley Only  
Fig. 3974. With Tight and Loose Pulley

Suitable for automobile garages, repair shops, gas engine starters, pneumatic water supply systems, spraying outfits, barber shops, launches and other places where limited volumes of air are required.

Enclosed crank case. Splash lubrication. Drop forged crank shafts. Renewable die cast bearings. Carefully ground piston and piston rings. Valves of the most approved design. Durable. Accurate.

Fig. 3973 shows the regular air-cooled machine with tight pulley only.

Fig. 3974 is arranged with tight and loose pulleys, a very convenient arrangement for starting and stopping the compressor when driven from shaft that is continually in motion.

★ NET PRICES EACH

SIZE.....	2x1 1/4	2x2 1/2	2 1/2 x2 1/2	3x3 1/2
Capacity Max. Speed, Cu. Ft. Per Min.	1.8	3.6	6.9	11.4
Maximum Lbs. Pressure, Constant Service	125	150	150	150
Minimum Speed, R. P. M.....	500	400	400	300
Maximum Speed, R. P. M.....	800	800	800	800
Motor Horse Power Required.....	1/4	1/2	3/4	1 1/2 or 2
Suction and Discharge Openings, Inches	3/8	3/8	1/2	3/4
Diameter and Face of Pulley.....	7x1 1/2	12x2	14x2	16 3/8 x2 1/2
Approximate Wt., with Tight Pulley only	38	50	60	130
Approximate Weight, with T. & L. Pulley	45	60	70	160
Size Air Receiver Recommended.....	12x36	14x46	14x46	20x48

★ NET EACH, with Tight Pulley...\$26.60 \$34.50 \$35.75 \$47.00  
★ NET EACH, with T.&L. Pulley...\$30.15 \$40.00 \$41.25 \$54.00

“STAY-DOWN” TANK HEATER

Fig. 831

Will keep 100 barrels of water from freezing at 10 below zero. Made of cast iron, will give long service and will not crack or leak. Has improved draft and smoke pipe on body independent of cover. Weight makes tank “Stay-Down” without fastening. Height, 24 inches.

Size No.	Diameter Inches	Shipping Weight, Lbs.	—★ NET EACH—	
			1 or 2	3 or More
2	12	135	\$ 7.95	\$ 7.35
4	14	165	\$ 9.90	\$ 9.15
6	16	195	\$13.00	\$12.00

BUSBY SUBMARINE TANK HEATER

Will heat a large supply of water because the large heating capacity is entirely under water. Will burn wood up to 30 inches.

Reliable. 14 gauge boiler plate. Welded seams. Heat quickly. The heat chest and fire box are each 30 inches long, 12 inches wide and 8 inches high, joining together at an angle of about 45 degrees. The heating chest being only 8 inches high will heat water at a low level in the tank.

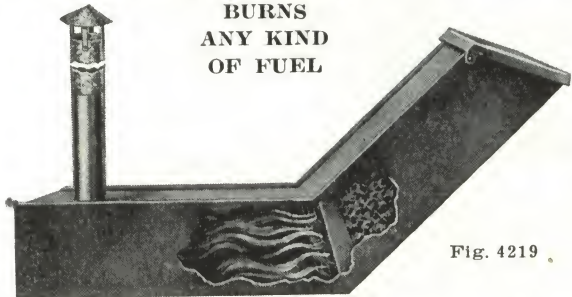


Fig. 4219

With Basket Grate .....★ NET EACH, \$9.50  
Without Grate .....★ NET EACH, \$8.10

AIR RECEIVERS

For Garage Use. Without Fittings



Fig. No. 1943

Made from 60,000 lbs. tensile strength steel. One head convex, the other concave. Circular seams single riveted, cross seams double riveted. Tested to 175 pounds; guaranteed for a working pressure of 110 lbs. All tanks with 1/2 in. drain opening.

Please note that the Air Receivers priced below are for not over 110 pounds working pressure, nor can they be used in city

of Chicago. Air receivers for higher pressures; also receivers to city of Chicago specifications: Price on application.

Made either vertical or horizontal.

Dia. In.	Ht. Ft.	Openings		Wt. Lbs.	List Each
		Inlet Cu. Ft.	Safety Valve Inches		
20 x 5	11	1 1/2	1	270	\$110.00
24 x 5	16	2	1	400	126.00
24 x 6	19	2	1	450	142.00
24 x 8	25	2	1	550	174.00
30 x 5	24	2 1/2	1 1/4	530	192.00
30 x 6	29	2 1/2	1 1/4	600	208.00

PRICES ON REQUEST

STOVER TANK HEATER

FORCED CIRCULATION  
ONE PIECE CONSTRUCTION

Burns coal, wood, or cobs. Forced circulation insures uniform temperature of water throughout the tank. One piece construction eliminates possibility of leakage. Will last indefinitely. Heavy cast iron construction. Is self-sinking. It is exceptionally easy to start a fire due to the large combustion chamber and ample space under the grates for draft.



Fig. 4033

The fire can be regulated, by the damper, to burn long periods. Large heating surface. Height 25 inches. Width 11 1/4 inches. Length 28 inches. Weight 240 pounds.

★ NET EACH, \$25.00



## GALVANIZED STEEL UNDERGROUND STORAGE TANKS FOR FUEL OIL UNDERWRITERS' APPROVED

Galvanized first quality open hearth steel. Cold flanged one piece heads. Two coats of rust resisting paint. Four threaded openings: For gasoline, 2—3½, 1—3 and 1—2 inch; for oil, 4—2 inch. One graduated gauge stick.

Capacity Gallons	Dimen. Inches	Wt. Lbs.	Gauge Steel	★ NET EACH
110 Gal.	26x48	105	16	\$19.00
280 Gal.	34x72	250	14	\$29.50
315 Blk.	36x72	600	3/16	\$30.80
550 Gal.	41x95	380	14	\$36.40
550 Gal.	41x95	515	12	\$42.40
550 Blk.	47x73-1/2	800	3/16	\$41.40
1000 Blk.	64x73-1/2	1200	3/16	\$59.60
1000 Blk.	47x133-1/2	1300	3/16	\$66.90
1000 Gal.	46x144	780	12	\$65.90
1500 Blk.	64x109-1/2	1600	3/16	\$78.80

Larger Sizes, Prices on Request.

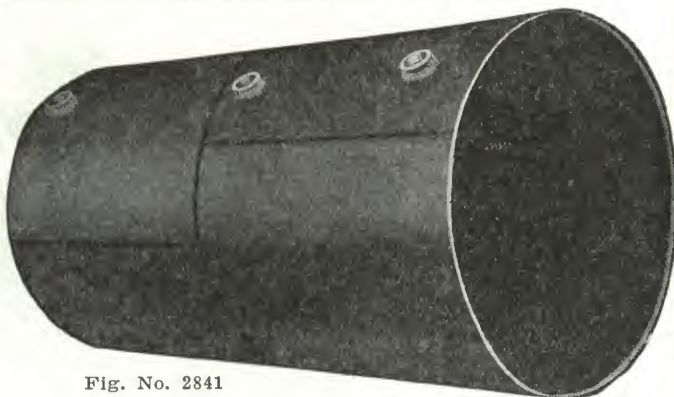


Fig. No. 2841

## OBOURD STEEL TANKS

For storage of oil, etc. Made of No. 14 gauge blue annealed steel. All seams are welded. Shell is one piece. Two 2-inch, two 1-inch and one 1½-inch openings in the top and one 1-inch opening in the head near the bottom. F. O. B. Warehouse, Chicago, Illinois.

**SPECIFY:** Whether the tank is to be HORIZONTAL or VERTICAL; whether or not lugs are wanted; whether or not gauge is wanted; whether or not the steel stand is wanted.

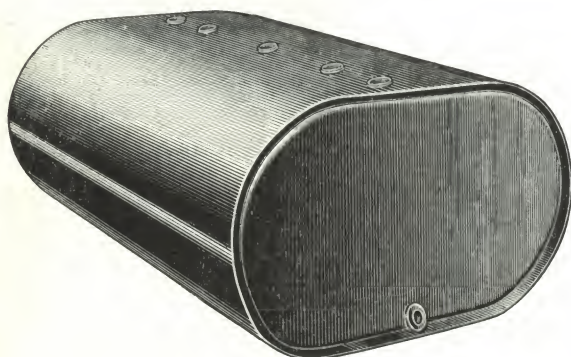


Fig. 3768

Size Gallons	Height Inches	Width Inches	Length Inches	★ NET EACH
<b>14 GAUGE. NOT APPROVED BY THE UNDERWRITERS!</b>				

250	27	44 ¼	55	\$19.50
275	27	44 ¼	60	\$19.50

### 12 GAUGE.

#### UNDERWRITERS' LABELED AND APPROVED

250	27	44 ¼	55	\$23.50
275	27	44 ¼	60	\$23.50

**LUGS.** Extra for 4 lugs, welded to the tank, and threaded 1½ inch I.P.T. for attaching pipe of any desired length. ★ NET EXTRA, \$1.10

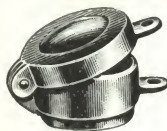
**GAUGE.** Extra for Magnetic Float Gauge, ★ NET EXTRA, \$1.65

**FIG. 3769. STRUCTURAL STEEL STAND.** For 250 and 275 gallon Obround Steel Tanks. A collapsible stand with cradles. Easily assembled. Extra strong to sustain the carrying weight required.

24 inches High	★ NET EACH, \$2.75
30 inches High	★ NET EACH, \$2.75
36 inches High	★ NET EACH, \$2.75

## HINGED FILL PIPE CAPS

Fig. 2843



For tanks. Heavy cast iron. Hinged cover and threaded for pipe. With lugs for strainer and hasp for lock.

2 inch	.....List Each, \$0.90
3 inch	.....List Each, 1.90
4 inch	.....List Each, 3.50

DISCOUNT .....33-1/3% OFF

## DOUBLE TAP BUSHINGS

Fig. 3770



For reducing threaded tank openings to the desired size.

Inches	LIST	Inches	LIST
2x1-1/2	\$0.70	2x1/2	\$0.70
2x1	\$0.70	3-1/2x1-1/2	\$1.05
2x3/4	\$0.70	3-1/2x1-1/4	\$1.05

DISCOUNT .....33-1/3% OFF

## SCREENED VENT FITTINGS



Fig. 3771

Double neck. Made of cast iron. Vent opening is screened.

1 inch	.....List Each, \$0.90
1-1/4 inch	.....List Each, \$1.20
1-1/2 inch	.....List Each, \$1.60
2 inch	.....List Each, \$1.90

DISCOUNT .....33-1/3% OFF

## PACKARD AUTOMATIC WELDERS

**For Arc Welding, Manufacturing, Repairing and Maintenance. For Welding all Types of Steel, Rolled or Cast**

It welds automatically, previous experience is unnecessary. Smooth, strong, dense and ductible welds are made by simply placing the rod end at the point to be welded and holding the Electrode holder still. Packard Welders are permanently

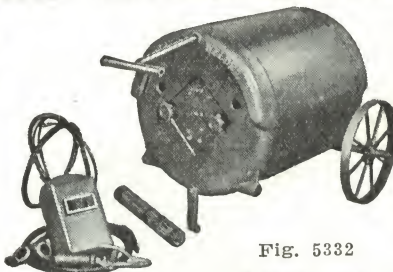


Fig. 5332

insulated and equipped with a heavy duty built-in blower to give proper ventilation and to prevent over-heating. Will stand up under hard use. Low operating cost. It is housed in a weatherproof frame, it permits welding outside or near moisture. Complete with: Electrode Holder; Welding Helmet; 1 Bundle Shielded A. C. Welding Rods, 1 Carbon Rod for Soldering, Brazing and Cutting, 10 Foot Extension Leads, 2-10 Foot Length Extra Flex Braided Copper Welding Cable.

**MODEL 125.** Welding ranges 25-125 amperes, 110-220 volts, 50-60 cycles. Welds light gauge sheets up to 1/4 inch boiler plate. It handles 5/64 to 1/8 inch A. C. Welding Rods. Progressive heat stages. Housing is 19-1/2 inches long. Overall between wheels is 20-1/2 inches. 21-1/2 inches high. It will weld 3/8 inch 1/8 inch rod an hour. Shipping weight, 160 pounds.

★ NET COMPLETE \$79.50

**MODEL 175.** For heavy duty. Welding ranges: 25 to 175 amperes—220 volts; 25 to 115 amperes—110 volts; 50 to 60 cycles. Welds light gauge sheets and up to 1/2 inch boiler plate. It handles 5/64 to 3/16 inch A. C. welding rods. 2 large bakelite knobs on panel for accurate heat control for various welding conditions. Housing is 28 inches long. 27-3/4 inches overall between wheels. 27-3/4 inches high. It will weld 285 inches of 3/16 inch rod in an hour. Shipping weight 450 pounds.

★ NET COMPLETE, \$169.50



STANDARD BLACK STORAGE TANKS

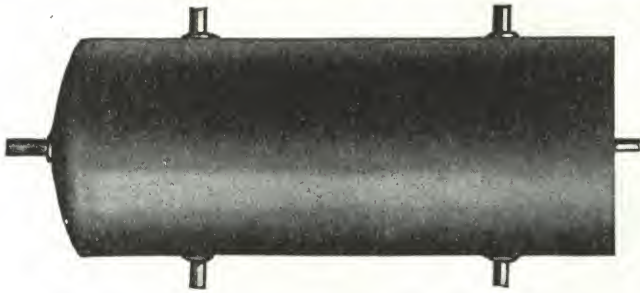


Fig. 2647

Tested to 115 pounds hydraulic pressure and guaranteed for working pressures not exceeding 75 pounds to the square inch. Heads dished to a radius equal the diameter of the shell. Tapped as shown for either vertical or horizontal installations. We recommend and always ship Riveted Tanks unless Welded Tanks are specified. Prices on heavier tanks or galvanized tanks will be quoted on receipt of specifications.

LIST PRICES EACH

Length, Feet	Cap., Gals.	Openings, Ins.	Wt., Lbs.	List Each	Length, Feet	Cap., Gals.	Openings, Ins.	Wt., Lbs.	List Each
Diameter 24 In.					Diameter 36 In.				
4	100	1½	330	\$109.00	6	315	2	700	\$206.00
5	120	1½	380	123.00	7	365	2	780	241.00
6	140	1½	440	134.00	8	420	2	870	256.00
					10	525	2	1030	293.00
Diameter 30 In.					Diameter 42 In.				
4	150	2	430	143.00	6	430	2	890	276.00
5	180	2	500	158.00	7	500	2	980	310.00
6	220	2	560	173.00	8	575	2	1070	333.00
7	250	2	630	196.00	10	720	2	1250	375.00
8	295	2	700	211.00	12	865	2	1430	415.00
					14	1000	2	1620	468.00

**RIVETED TANKS** WE RECOMMEND **PRICES ON REQUEST**  
Welded Tanks .....PRICES ON REQUEST

BLACK PNEUMATIC PRESSURE TANKS  
For Domestic Water Supply Systems



Fig. 844B

Tested and Guaranteed for Working Pressures not exceeding 80 pounds to the square inch. We recommend and always ship Riveted Tanks unless Welded Tanks are specified. Prices on heavier tanks or galvanized tanks will be quoted on receipt of specifications.

LIST PRICES EACH

Length, Feet	Cap., Gals.	Wt., Lbs.	List Each	Length, Feet	Cap., Gals.	Wt., Lbs.	List Each
24 In. Diam., Tapped for ½x14 In. Water Gauge				42 In. Diam., Tapped for ½x20 In. Water Gauge			
5	120	390	\$120.00	8	570	1370	\$365.00
6	140	440	135.00	10	720	1630	425.00
10	245	660	204.00	12	865	1880	480.00
				14	1000	2150	545.00
30 In. Diam., Tapped for ½x14 In. Water Gauge				48 In. Diam., Tapped for ½x24 In. Water Gauge			
6	220	590	172.00	10	940	1930	490.00
8	295	720	212.00	14	1300	2540	620.00
10	365	850	244.00	16	1500	2830	690.00
36 In. Diam., Tapped for ½x16 In. Water Gauge				20	1880	3440	835.00
6	315	730	205.00	24	2260	4018	965.00
8	420	890	255.00				
10	525	1050	295.00				
12	630	1200	330.00				
14	735	1380	380.00				

Note: Unless "Horizontal" is specified, all 6 ft. tanks will be furnished vertical pattern, tapped for ½x14 in. water gauge.

**RIVETED TANKS** WE RECOMMEND **PRICES ON REQUEST**  
Welded Tanks .....PRICES ON REQUEST



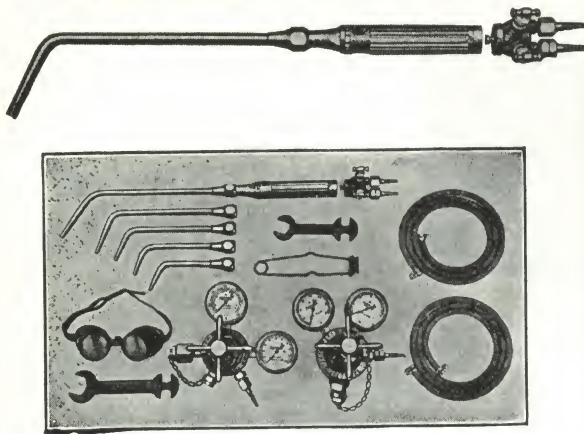
**PRESTOWELD WELDING OUTFIT**

Fig. 4750 Mfrs. W-105

For all general welding operations. Because of its efficiency, simplicity and portability it is particularly suitable for garages, blacksmiths, machine boiler and welding shops, plumbers, steamfitters, general contractors and all manufacturing plants where quick economical repair of broken, worn or defective metal parts is so important. Can be mounted with cylinders on a two-wheel truck.

The Outfit consists of: W-105 Welding Blowpipe, with 5 tips, lighter and wrench; R-109 Oxygen Regulator, with 100 pound and 3000 pound gauges and wrench; R-103 Acetylene Regulator, with 30 pound and 350 pound gauges; two 12-1/2 foot lengths 1/4 inch hose with clamps; one pair No. 12 Goggles; and manual of instructions.

★ NET EACH, \$75.00

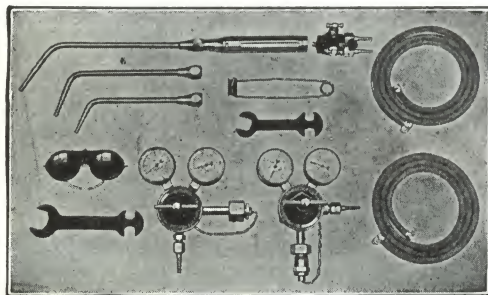
**PRESTOWELD AUTO REPAIR OUTFIT**

Fig. 4751. Mfrs. W-105A

This outfit is especially recommended for the garage or plant that has only an occasional welding job but needs a large size blowpipe. The No. 3 and 6 tips will handle the every day welding jobs of the average garage, while the No. 10 tip supplies ample heat for frame straightening and other heavy duty heating operations.

The Outfit consists of: W-105 Welding Blowpipe with No. 3, 6 and 10 tips, lighter and wrench; R-106 Oxygen Regulator with 50 pound and 3000 pound gauges and wrench; R-107 Acetylene Regulator with 30 pound and 350 pound gauges; two 12-1/2 foot lengths 1/4 inch hose with hose clamps; and one pair No. 15 spectacles.

★ NET EACH, \$55.00

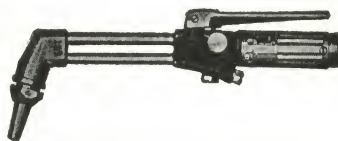
**PRESTOWELD CUTTING ATTACHMENT**

Fig. 4752. Mfrs. CW-105

A most convenient piece of apparatus for adapting the W-105 Welding Blowpipe for cutting purposes. It is intended for the shop that does only occasional light cutting. With No. 1 and 2 nozzles.

★ NET EACH, \$21.00

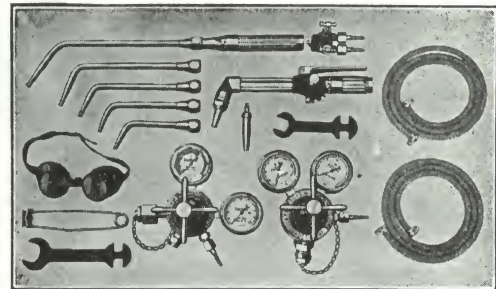
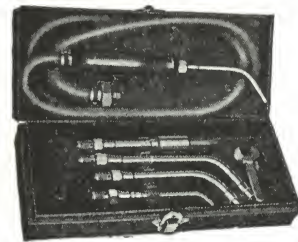
**PRESTOWELD COMBINATION WELDING AND CUTTING OUTFIT**

Fig. 4753

The combination outfit is ideal for all the welding and cutting of the ordinary repair shop, garage or manufacturing plant where it is not necessary to do the welding and cutting at the same time. Can be mounted on a two-wheel truck.

The Combination Outfit consists of: W-105 Welding Blowpipe with 5 tips, lighter and wrench; CW-105 Cutting Attachment with 2 nozzles; R-109 Oxygen Regulator with 100 pound and 3000 pound gauges and wrench; R-103 Acetylene Regulator with 30 pound and 350 pound gauges; two 12-1/2 foot lengths 1/4 inch hose with hose clamps; one pair No. 12 goggles; and manual of instructions.

★ NET EACH, \$96.00

**PREST-O-LITE SOLDERING AND BRAZING OUTFITS**

This outfit consumes acetylene only—no oxygen required. The handle is interchangeable on five stems which cover a wide range of heating operations—soldering copper pipe and fittings, melting metal, thawing pipe, wire splicing etc. The outfit consists of 5-in-1 Torch Handle; stem for very fine soldering and brazing; stem for light soldering and brazing; stem for medium soldering and brazing; stem for heavy soldering and brazing; soldering copper; 6 feet 7/32 inch hose with hose clamps; unions for Prest-O-Lite A B, E and MC tanks; substantial metal carrying case.

5-In-1 Outfit, Fig. 4754. . . . ★ NET EACH, \$9.00

4-in-1 Outfit. The same as the 5-in-1 without the soldering copper. In waterproof case.

4-In-1 Outfit, Fig. 4755. . . . ★ NET EACH, \$6.50

**PREST-O-LITE 10 POUND PRESSURE REGULATOR**

Fig. 4756. Mfrs. A-6053

Best results with the 4-in-1 and 5-in-1 outfits are obtained by using this regulator, which holds the gas at a correct pressure.

★ NET EACH, \$5.00

**OXWELD STEEL WELDING RODS**

Fig. 4757

No. 1 High test. Patented. For high strength welds in steel plates, sheets, steel castings, etc.

Diameter	1/16	1/8	3/16	1/4	5/16	3/8
Length	36	36	36	36	36	36

★ NET POUND \$0.23 \$0.21 \$0.20 \$0.20 \$0.20 \$0.20

**OXWELD NON-FUMING BRONZE ROD**

Fig. 4758

No. 25M. Patented. For high strength, wear resisting welds in copper, brass or for bronze welding malleable iron, steel or cast iron. Non-fuming. 36 inches long.

★ NET 100 POUNDS

Diameter	1/16	3/32	1/8	3/16	1/4	3/8
1 to 49 Lbs.	\$61.50	\$54.00	\$50.25	\$45.00	\$42.35	\$40.10
50 to 99 Lbs.	\$56.50	\$49.00	\$45.25	\$40.00	\$37.35	\$35.10
100 Lbs., Over	\$55.50	\$48.00	\$44.25	\$39.00	\$36.35	\$34.10



IMPERIAL ALL-PURPOSE  
WELDING OUTFIT



Fig. No. 3686

Mfrs. 112. For every repair shop. Consists of: Type 4-X welding torch and 4 copper welding tips. Type D oxygen regulator. Type DD acetylene regulator. 12½ feet length heavy duty oxygen hose. 12½ length heavy duty acetylene hose. 2 wrenches, spark lighter, tank adapters, 1 pair goggles and welding instruction book.

★ NET OUTFIT, \$45.00

Mfrs. 117. With 2-gauge regulators instead of 1-gauge regulators.

★ NET OUTFIT, \$54.50

CUTTING ATTACHMENT

Fig. No. 3687

Fits welding torches furnished in outfits 111, 112, 117. With cutting tip. Type X...★ NET EACH, \$17.50

DUPLEX WELDING &  
CUTTING OUTFIT

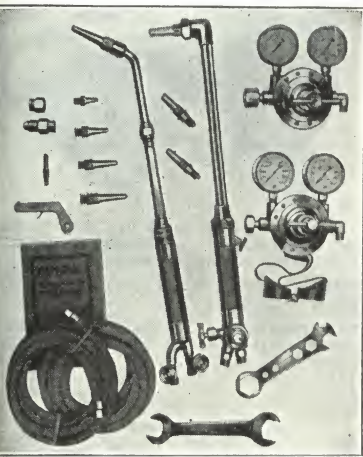


Fig. No. 3688

Handles all welding and cutting for which the process is adapted. Consists of a No. 11 Outfit and a type R cutting torch with 3 copper cutting tips and an extra pair of goggles and 25 foot lengths of hose.

No. 115.★ NET OUTFIT, \$117.50

WELDING OUTFIT

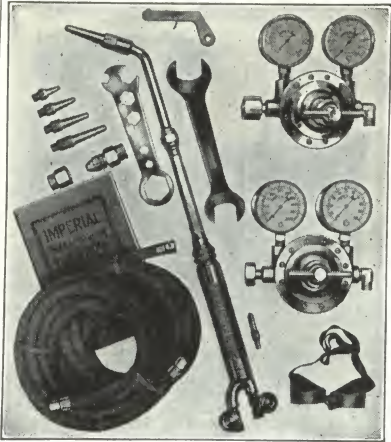


Fig. No. 3689

Mfrs. 111. Will do all welding work, from thin sheet metal to heaviest castings. Consists of: Type X welding torch with 5 type C copper welding tips and 2 mixers. Type K double gauge oxygen regulator. Type AA double gauge acetylene regulator. 12½-ft. length heavy duty oxygen hose. 12½-ft. length heavy duty acetylene hose. 1 pair welding goggles, 1 spark lighter. 2 wrenches, complete welding handbook, and tank adapters.

★ NET OUTFIT, \$69.50

Mfrs. 114. With Type X cutting attachment, No. 2R cutting tip and lock nut and cutting handbook.

★ NET OUTFIT, \$87.00

LEAD BURNING OUTFIT

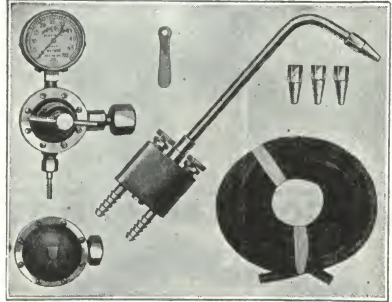


Fig. No. 3690

For use with acetylene gas and oxygen in high pressure tanks, large or small. Consists of 1 oxygen regulator with 50 pound pressure gauge, 1 acetylene constant pressure regulator, 25 feet 3/16 inch hose, 1 lead burning torch with 4 tips, 1 wrench. Can also be used for light welding on all metals.

No. 120.★ NET OUTFIT, \$25.00

GASWELD FLUX



Fig. 4668

Dissolves oxides quickly, releases trapped gases, clears the surface, and makes the metal flow easy. For welding cast iron and steel and for brazing or bronze welding cast iron, malleable iron, and steel.

★ NET POUND CAN, \$1.50

IMPERIAL SOLDERING AND  
BRAZING OUTFITS

For radiator work and for all kinds of soldering, brazing and light pre-heating. Torch burns acetylene, and the tips draw in the necessary oxygen from the atmosphere. Tank connection fits small acetylene light tank. Adapter for use with large tank, \$1.00 net.

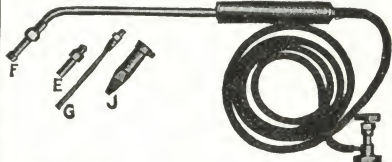


Fig. 2641-31. Consists of Type AO Torch, 4 tips, including one long spout for radiator soldering, 6 foot hose, and needle shut-off valve.

★ NET EACH, \$7.00

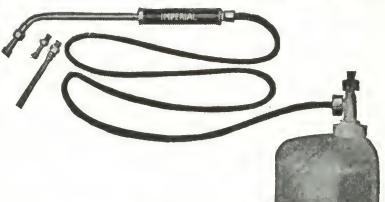


Fig. 2641-30. Consists of Type AO Torch, 3 tips, including one long spout for radiator soldering, 6 foot hose, and tank connection.

★ NET EACH, \$4.50

WELDING HANDSHIELD

Fig. 4667

Made of vulcanized fibre. Light weight, yet sturdy and rugged. It is properly ventilated and will exclude all outside light. A flange fits up and under the chin affording absolute neck protection. Lens holder permits the easy removal of either the welding lens or cover glass.



★ NET EACH, .....\$5.20

E-Z WELDING COMPOUND

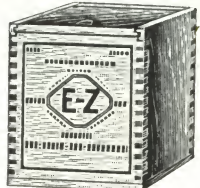


Fig. No. 2914

Used between laps of welds. For all grades of steel.

5 and 10-lb. pkgs. ★ Net Pound, \$0.18  
25-lb. boxes.....★ Net Pound, \$0.17  
50-lb. boxes.....★ Net Pound, \$0.17  
100-lb. drums...★ Net Pound, \$0.16½

"ANTI-BORAX"  
OXY-ACETYLENE  
WELDING FLUXES

Fig. No. 3035

Guaranteed to give satisfaction.

	1-lb. Cans ★ Net Lb.	5-lb. Cans ★ Net Lb.
For Cast Iron		
Crucible Steel .	\$0.45	\$0.40
Brass or Bronze	.45	.40
Metals .....	.50	.45
Copper .....	.75	.70



## WELDING RODS

Fig. 3078. ★ NET POUND. Prices subject to change without notice. Prices on larger quantities than those listed on request.

**COPPERED 6-G. Steel.** The standard of copper coated acetylene steel welding rods. Carbon content of .06 maximum. Recommended for all around mild steel. Welding by the acetylene process.

Inches	1 to 49 Lbs.	50 Lbs.
1/4 by 36	.....\$0.13	\$0.11
3/16 by 36	.....\$0.13	\$0.11
1/2 by 36	.....\$0.13 1/2	\$0.11 1/2
3/32 by 36	.....\$0.15	\$0.13
1/16 by 36	.....\$0.18 1/2	\$0.16 1/2

**TENSOX.** For all position oxy-acetylene welding where ductility and high tensile strength are required. Hard drawn, clean, medium carbon steel for a smooth even flow. Physical properties of weld metal will average 60,000-70,000 pounds P.S.I. with an elongation of 15-25% in two inches.

Size	1 to 99 Lbs.	100 to 299 Lbs.	300 Lbs. or More
Inches			
1/4 x 36	\$0.14	\$0.13	\$0.12
3/16 x 36	\$0.14	\$0.13	\$0.12
5/32 x 36	\$0.14	\$0.13	\$0.12
1/8 x 36	\$0.15	\$0.14	\$0.13
3/32 x 36	\$0.17	\$0.16	\$0.15
1/16 x 36	\$0.20	\$0.19	\$0.18

**ROUND CASTOX.** For the general run of cast iron welding by the acetylene method. Welds show increased strength and free machining qualities. Square rod can also be furnished.

Inches	1 to 49 Lbs.	50 Lbs.
3/8 by 24	.....\$0.12	\$0.10
5/16 by 24	.....\$0.13	\$0.11
1/4 by 24	.....\$0.14	\$0.12
3/16 by 24	.....\$0.17	\$0.15
1/8 by 18	.....\$0.28	\$0.26

**NICKOX.** A 3 1/2% nickel steel acetylene welding rod. Gives high tensile strength and ductility. By proper heat treatment a weld will have a tensile strength exceeding 100,000 pounds to the square inch.

Inches	1 to 49 Lbs.	50 Lbs.
1/4 by 36	.....\$0.22	\$0.20
3/16 by 36	.....\$0.24	\$0.22
1/8 by 36	.....\$0.27	\$0.25

**CAST ALUMINOX.** A cast aluminum rod made entirely from new metal, and free from all impurities. For welding cast aluminum by the acetylene method.

Inches	1 to 49 Lbs.	50 Lbs.
1/4 x 18	\$0.90	\$0.85
3/16 x 18	\$1.00	\$0.95



**BRAZOX.** Produces a low melting point, and has exceptionally free flowing qualities, free from all impurities. For welding sheet brass, brass castings, etc.

Size	1 to 24 Lbs.	25 to 49 Lbs.	50 to 99 Lbs.	100 Pounds
Inches				
1/4 x 36	\$0.41	\$0.38 1/2	\$0.34 1/2	\$0.33 1/2
3/16 x 36	\$0.43 1/2	\$0.41 1/2	\$0.37	\$0.36
1/8 x 36	\$0.47 1/2	\$0.46	\$0.41	\$0.40
1/16 x 36	\$0.57 1/2	\$0.55 1/2	\$0.50 1/2	\$0.49 1/2

**TOBIN BRONZE.** A cold drawn bronze rod, for welding brass, bronze, and malleable iron by the acetylene method.

Size	1 to 24 Lbs.	25 to 49 Lbs.	50 to 99 Lbs.	100 Pounds
Inches				
1/4 x 36	\$0.42 1/2	\$0.41	\$0.35 1/2	\$0.34 1/2
3/16 x 36	\$0.44 1/2	\$0.43 1/2	\$0.37 1/2	\$0.36 1/2
1/8 x 36	\$0.50	\$0.48	\$0.42 1/2	\$0.41 1/2
1/16 x 36	\$0.62	\$0.58	\$0.52 1/2	\$0.51 1/2

**NON-FUMING BRONZE.** A general purpose bronze rod of high tensile strength having the combined features of extreme ductility with a minimum amount of fuming. It flows at 1620° Fahrenheit.

Size	1 to 24 Lbs.	25 to 49 Lbs.	50 to 99 Lbs.	100 Pounds
Inches				
1/4 x 36	\$0.42 1/2	\$0.41	\$0.35 1/2	\$0.34 1/2
3/16 x 36	\$0.44 1/2	\$0.43 1/2	\$0.37 1/2	\$0.36 1/2
1/8 x 36	\$0.50	\$0.48	\$0.42 1/2	\$0.41 1/2
1/16 x 36	\$0.62	\$0.58	\$0.52 1/2	\$0.51 1/2

**DRAWN ALUMINUM.** A drawn aluminum rod recommended for welding sheet aluminum. Made from specially selected virgin metal and the impurities are eliminated as far as possible.

Inches	1 to 49 Lbs.	50 Lbs.
1/4 x 36	\$0.90	\$0.85
3/16 x 36	\$0.90	\$0.85
1/8 x 36	\$0.90	\$0.85

**SUL 18-E ELECTRODES.** A bare rod for the general run of mild steel welding by D.C. electric method. Suitable for welding in all positions. Carbon range of .13 to .18.

**LIGHT PROCESSED 18E ELECTRODES.** A light coating over the entire length of the rod which tends to stabilize the arc and gives a non-porous ductile weld of maximum tensile strength. For all around mild steel welding by D.C. electric equipment. For welding in all positions.

Size	1 to 49 Lbs.	50, 100, 150 Lbs.	200 to 950 Lbs.
Inches			
1/4 x 14	\$0.10 1/2	\$0.08 1/2	\$0.07 1/2
3/16 x 14	\$0.10 1/2	\$0.08 1/2	\$0.07 1/2
5/32 x 14	\$0.10 1/2	\$0.08 1/2	\$0.07 1/2
1/8 x 14	\$0.11 1/2	\$0.09 1/2	\$0.08 1/2
3/32 x 14	\$0.12 1/2	\$0.10 1/2	\$0.09 1/2

**STEELKOTE NO. 18.** This rod has a solid coating with a 1 inch bare end. For all around mild steel welding by A.C. or D.C. electric equipment. Suitable for welding in all positions. 50 pound bundles.

Size	1 to 49 Lbs.	50, 100, 150 Lbs.	200 to 950 Lbs.
Inches			
1/4 x 14	\$0.12 1/2	\$0.10 1/2	\$0.09 1/2
3/16 x 14	\$0.12 1/2	\$0.10 1/2	\$0.09 1/2
5/32 x 14	\$0.12 1/2	\$0.10 1/2	\$0.09 1/2
1/8 x 14	\$0.13 1/2	\$0.11 1/2	\$0.10 1/2
3/32 x 14	\$0.15 1/2	\$0.13 1/2	\$0.12 1/2

**WHITE FLASH.** A shielded arc electrode. For all around mild steel welding by the electric method, either A.C. or D.C. gives high tensile strength and ductility.

Size	1 to 49 Lbs.	50, 100, 150 Lbs.	200 to 950 Lbs.
Inches			
1/4 x 14	\$0.17 1/2	\$0.15 1/2	\$0.13 1/2
3/16 x 14	\$0.18 1/2	\$0.16 1/2	\$0.13 1/2
5/32 x 14	\$0.20 1/2	\$0.18 1/2	\$0.14 1/2
1/8 x 14	\$0.21 1/2	\$0.19 1/2	\$0.15 1/2
3/32 x 14	\$0.22 1/2	\$0.20 1/2	\$0.16 1/2
1/4 x 14	\$0.25 1/2	\$0.23 1/2	\$0.19 1/2
3/32 x 14	\$0.35 1/2	\$0.33 1/2	\$0.29 1/2

**BLUKOTE.** For the general run of cast iron welding by the electric method on either A.C. or D.C. equipment. A coating eliminates excessive penetration, avoiding dilution of the carbon in the casting with the weld metal and resulting in a machinable weld. 50 pound bundles.

Size	1 to 49 Lbs.	50, 100, 150 Lbs.	200 to 950 Lbs.
Inches			
5/32 x 14	\$0.16 1/2	\$0.14 1/2	\$0.13 1/2
1/8 x 14	\$0.17 1/2	\$0.15 1/2	\$0.14 1/2
3/32 x 14	\$0.19 1/2	\$0.17 1/2	\$0.16 1/2

## INDUSTRIAL GOGGLES AND SPECTACLES

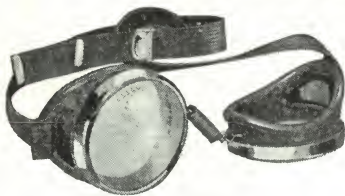


Fig. 4382

Strong, light, moisture proof material. Fits contour of the face. Low cup. Chain nose bridge. Adjustable elastic headbands.

FOR CHIPPING AND GRINDING	
With Lenses	LIST EACH
Clear Super-Safety	.....\$2.58
Clear Non-Shattering	.....\$2.25
Clear Industrial	.....\$1.88
Clear Hardened	.....\$2.25

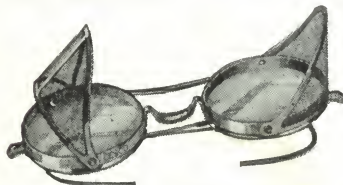


Fig. 4385

**DISCOUNT** { 1 to 11 ..... 12 or More .....



Fig. 4383

Wide unrestricted vision. Metal cups, perforated for ventilation. Large curved lenses. Adjustable elastic headbands and strap bridge. Rubber binding.

FOR GRINDING AND CHIPPING	
With Lenses	LIST EACH
Hardened	.....\$2.25
FOR GENERAL SHOP USE	
Heavy Clear Industrial	.....\$1.41
Light Weight Clear	.....\$1.05

White metal. Reinforcing bar at top. Full cable temples.

FOR CHIPPING AND GRINDING	
Clear Lenses EACH	Super-Safety
Non-Shattering	.....\$1.77
Industrial	.....\$1.40
Hardened	.....\$1.77

White metal frame. Large lenses.

FOR POLISHING AND BUFFING	
With Lenses EACH	Smoke Green
Amber Welding	.....\$0.75
Clear Industrial	.....\$0.46
Regular Clear	.....\$0.42



Fig. 4384

Vulcanized fibre. Cups are slotted for ventilation. Adjustable elastic headband. Leather nose bridge.

FOR WELDING. With Cover Glass.	
With Lenses	LIST EACH
Essentialite	.....\$2.63
Smoke Green, Blue or Amber	.....\$2.09
Cescoweld	.....\$3.25



Fig. 4386

.....25% OFF  
.....33 1/3% OFF



LINCOLN METAL  
ELECTRODE HOLDER

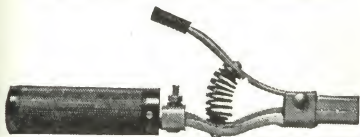


Fig. 4741—Type T

For currents up to 300 amperes intermittent and 250 amperes continuous. Easy to handle in close quarters. A complete copper, low-resistance circuit direct from the welding machine to the electrode. Cadmium plated metal parts except spring. Accommodates any size electrode up to 1/4 inch and can be arranged to handle 5/16 and 3/8 inch electrodes.

1 to 5.....★ NET EACH, \$3.50  
6 or more.....★ NET EACH, \$2.90

JOHNSON  
BENCH GAS FURNACES

Powerful, efficient and economical. The fire-box is lined with a heavy refractory lining which assures uniform heat. The shelf in the rear forms a rest for soldering coppers. The curved shaped hood forces a return blast over the tops of the irons or parts being heated. The gas consumption is 7,500 B. T. U.'s each hour for each burner.

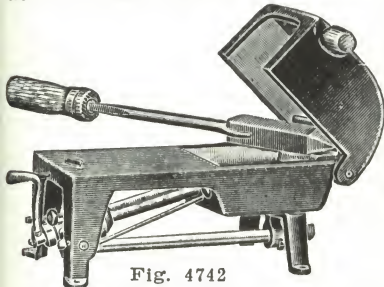


Fig. 4742

**ONE BURNER.** For heating soldering coppers up to 6 pounds each pair, and for heat treating, tempering, annealing small carbon steel tools, etc. 12 inches long. Weight 12 pounds. Firepot opening is 3-1/2 by 2-1/2 inches.

★ NET EACH, \$10.00

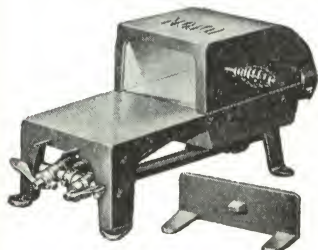


Fig. 4743

**TWO BURNERS.** For heating soldering coppers up to 12 pounds each pair, heat-treating, tempering, annealing or case-hardening carbon steel tools or small metal parts, etc. With shut-off valve and pilot light. With work rest block and baffle plate. 14 inches long. Weight 18 pounds. Firepot opening is 4-1/2 by 2-3/4 inches.

★ NET EACH, \$13.00

Fig. 4744

**THREE BURNERS.** For heating the largest soldering coppers, branding irons, stenciling irons, etc. For heat-treating, tempering, annealing or case-hardening carbon steel tools, parts, etc. With a shut-off valve and pilot light. 16 inches long. 9-1/2 inches high. The fire-box is 6-1/4 by 5 by 6-1/2 inches with an opening of 4 by 6 inches. Weight, 43 pounds.

★ NET EACH, \$22.50

ELECTRIC SOLDER AND  
WAX MELTING POTS

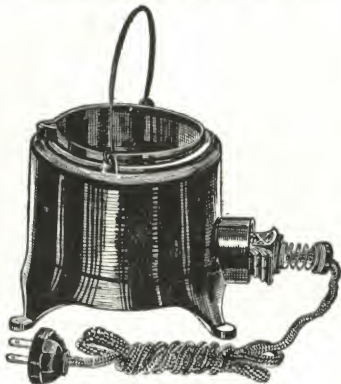


Fig. 4746

Economical to operate for dipping and tinning and hardening small tools. It will melt metal in twenty minutes or more. SPECIFY 110 or 220 volts.

Cap. Lbs.	Watts	Shipping Weight	★ NET EACH
<b>SOLDER POT</b>			
1/2	165	4 Pounds	\$5.00
2	220	5 Pounds	\$5.00
4	275	6 Pounds	\$5.00
<b>WAX POT</b>			
8 Liquid Ounces	100	6 Pounds	\$5.00

JOHNSON GAS METAL  
MELTING POT FURNACES



Fig. 4745

Quick metal melting furnaces. Equipped with powerful direct jet Bunsen burners with shut-off valve and pilot light. Can be used for melting lead, babbitt, tin, type metal, etc., or for melting chemicals, etc. Strongly built of cast iron. Removable cast iron pots.

Steel hoods carry off the smoke and fumes from the metal and protect the metal from oxidizing action. Heavily constructed of sheet steel with large door. Hoods are extra.

Size Lbs.	Number Burners	Hgt. Ins.	Pot Diam.	Pot Depth
18	1*	13	5-1/4	3
50	1#	18	7	5
150	3*	28	9	7
300	4#	31	13	7-1/2
600	6#	31	16-1/2	10

\* Gas consumption is 7500 B. T. U.'s each burner, each hour.

# Gas consumption is 17,500 B. T. U.'s each burner, each hour.

Size Lbs.	Wght. Lbs.	★ NET EACH	Steel Hood
18	15	\$7.00	.....
50	36	\$14.00	.....
150	100	\$32.50	\$13.50
300	185	\$45.00	\$14.40
600	345	\$75.00	\$17.10

COMBINATION BRANDING  
AND SOLDERING  
BLOW TORCH



Fig. 4747

The branding iron is interchangeable with soldering coppers or other attachments. The super heating chamber gives a dry gas which vaporizes perfectly and delivers 50% more heat from the same amount of gas. Self cleaning needle valve. Generating cup, stand and plug assure easy starting. The branding dies are extra and should not be larger than 3 by 6 inches. For larger brands double and triple burner torches can be furnished.

3/4 Pint...★ NET EACH, \$7.50  
1 Pint...★ NET EACH, \$8.50

BRANDING DIES

Letters	★ NET PRICE
1 to 5 .....	Minimum, \$4.00
6 to 19 .....	Each Letter, \$0.75
20 or More .....	Each Letter, \$0.50

ATTACHMENTS

No.	★ NET EACH
1 Soldering Tip .....	\$1.25
2 Bent Soldering Tip .....	\$1.50
3 Chisel Soldering Tip .....	\$1.50
4 Large Soldering Tip .....	\$1.75
5 Large Chisel Soldering Tip .....	\$1.75
6 Soldering Tip .....	\$1.50
7 Flame Reducer .....	\$1.00
8 Rapid Paint Scraper .....	\$1.00
9 Small Cup .....	\$1.00
10 Self Cleaning Ladle .....	\$1.00

ELECTRIC  
BRANDING TORCHES



Fig. 4748

**SIZE 1.** 2 inch round branding surface for light branding. Branding dies are extra.

★ NET EACH, \$10.00

**SIZE 2.** Branding surface 2-1/2 by 4-1/2 inches or 3 inch round. For all around branding. Branding dies are extra.

★ NET EACH, \$15.00

**Handle for Size 2.** Double grip swivel handle attached at a right angle to the main handle for ease of handling.

★ NET EXTRA, \$1.00

BRANDING DIES

Letters	★ NET PRICE
1 to 5 .....	Minimum, \$4.00
6 to 19 .....	Each Letter, \$0.75
20 or More .....	Each Letter, \$0.50



## CLAYTON &amp; LAMBERT GASOLINE TORCHES



Fig. 4581. Mfrs. 600A

For occasional use on odd jobs under ordinary conditions. Polished brass. The burner has tapered burner tube closed at the back, producing a hot well controlled flame. Quick acting pump with lock for the pump plunger. Inter locking fittings make them rigid with the tank and prevent leaks. 1 quart size.

★ NET EACH, \$3.05

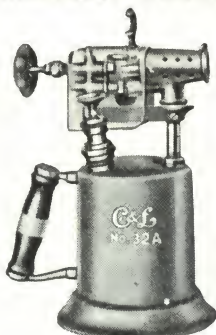


Fig. 32ACL

Windproof. Burns perfectly in all kinds of weather, also indoors. Windshield provides positive protection. Powerful burner has self-cleaning non-enlargeable gas orifice. Tank is drawn from heavy gauge cartridge-brass and is strongly reinforced. Powerful double spring check valve pump. 1 Quart.

★ NET EACH, \$6.07



Fig. 4580. Mfrs. 325

For extra heavy or very light work under the most severe weather conditions. Burner produces a blue blast over ten inches long which can be reduced to a small pointed flame for light work. Will burn in any position. For all around use. For soldering copper pipe and fittings and melting out soil pipe joints, etc. 1 quart size.

★ NET EACH, \$7.40

## DREADNAUGHT SAFETY BLOW TORCHES

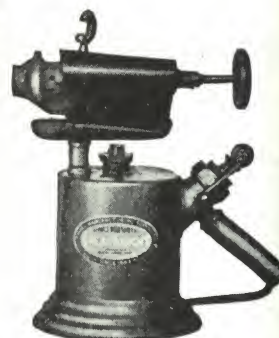


Fig. 3575. Mfrs. 41

Extra heavy steel burner with alloy casting around the coil. It gives exceptional heat. Drawn steel tank with welded bottom. Filler plug, pump and supply pipe connections flanged on inside and brazed. Seamless brass pump shell in steel forging pump housing, with removable pump plunger. Quart size.

★ NET EACH, \$5.25

## CLAYTON &amp; LAMBERT GASOLINE FIRE POTS

Seamless tank, drawn from heavy gauge steel, is thickly coated with tin inside and outside to prevent rust and insure against leaks. Edges are rolled over bottom and soldered. Steel cushion protecting band fits over base. Powerful heavy-duty pump. Sturdy construction. Funnel-shaped filler with dust-proof cap.

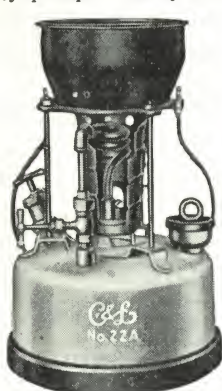


Fig. 22CL. Mfrs. 22A

## COIL UNIT

Largest selling fire pot in the world. Easy to start. Simple to operate. Guaranteed to burn low-gravity gasoline perfectly in all weather. Terrific heat. Large volume of flame. Speed in melting a pot of solder or babbitt has never been equalled. Quick detachable coil unit. Ruggedly built. Dependable in operation. 1 gallon capacity.

★ NET EACH, \$8.87

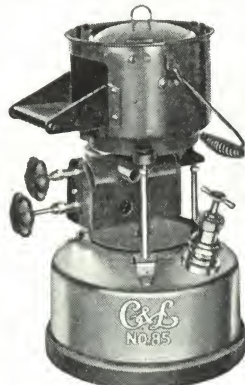


Fig. 4307. Mfrs. 85

QUICK GENERATING 1800° blue flame pre-heater regulated by lower valve keeps burner hot. Upper valve regulates fire. Noiseless. Smokeless and odorless for inside work. Windshield provides positive protection in all weather. Powerful burner, concentrated, intense heat. Heats pair of 12 pound coppers and melts pot of metal at same time. Operates six hours on gallon gasoline.

★ NET EACH, \$12.27

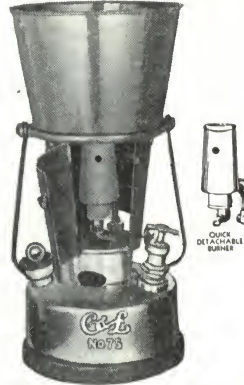


Fig. 4308. Mfrs. 75

## HEAVY DUTY

Windproof. Trouble-free. Standard for public utility work. For extra severe, hard service. Large, powerful, extremely hot blast flame. Burner gives long service without cleaning. Burner unit quickly replaced. Extra strong construction. Quickly melts 75 pounds of solder, or kettle of paraffin or insulating compound. 1 gallon capacity.

★ NET EACH, \$15.87

## PREWAY BLOW TORCH

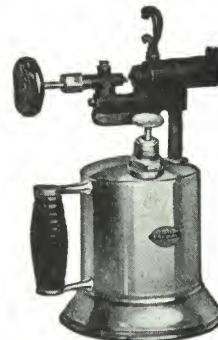


Fig. 4082. Mfrs. 51

Generates from gasoline run into cup under burner. Removable, self-cleaning gas orifice and needle point. Heavy seamless drawn brass tank. 87% copper burner head. Air adjustment. Brass pump. Quart size.

★ NET EACH, \$2.75

## IMPROVED GEM TINNERS' AND ROOFERS' FURNACE

The pioneer among tinner's furnaces—always popular because of its superior performance under all conditions. It has been improved and simplified and every part made "get-at-able." It has new burner,  $4\frac{1}{4} \times 1\frac{1}{4}$  inches; improved generator and drip cup, safety globe valve, leakless brass pump and improved handle. Capacity 3 quarts. Size  $20\frac{1}{2} \times 7 \times 15$  inches high. Weight 14 pounds; crated  $22\frac{1}{2}$  pounds. No. 3, with galvanized steel reservoir.

★ NET EACH, \$14.35



Fig. No. 822

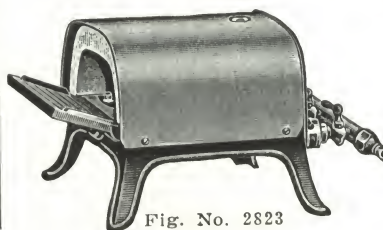
GAS FURNACE  
For Soldering Coppers

Fig. No. 2823

A compact and well made furnace, indispensable where much heating is done. No. 3—Single burner, with fire brick.

★ NET EACH, \$3.20

No. 4—Double burner with fire brick.

★ NET EACH, \$4.00



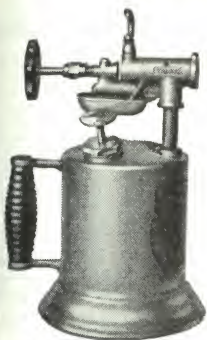
**TURNER GASOLINE BLOW TORCHES—New Line!**

Fig. 4222. Mfrs. 150  
Standard. For non-professional users. Improved burner develops extremely hot flame. Cool composition valve handle. New design needle prevents orifice enlargement. Enclosed trouble-proof pump unit. Seamless brass tank, dull finish. Top filling of tank by pump removal. Quart.

**\$2.60**  
★NET EACH

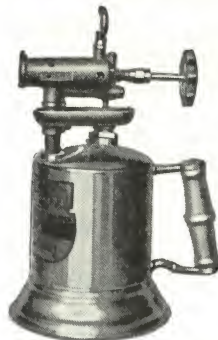


Fig. 4223. Mfrs. 30A  
Standard. For professionals. Improved design burner develops high heat and gives superior performance in any weather. Removable cleaning needle and non-enlargeable orifice. Cool composition valve handle. Effective trouble free pump. Polished seamless brass tank. Comfortable and substantial handle grip. Quart.

★NET EACH, \$3.20



Fig. 4224. Mfrs. 206A  
Super-Standard. For professionals. Operates perfectly in any weather. Sturdy construction. Long service. Impossible to jam orifice by hard usage. Cool composition valve handle. Polished seamless brass tank. Trouble-free pump. Quart.

★NET EACH, \$4.55

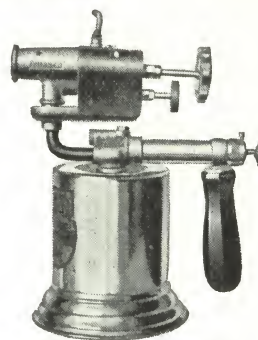


Fig. 4225. Mfrs. 45A  
Super-Master. For professionals. Finest performance and modern improvements. Extremely powerful blast functions perfectly in severest weather. Orifice cannot be enlarged by rough usage. Drip cup priming through lower valve. Polished brass tank. Safety valve and air release. Quart.

★NET EACH, \$6.55

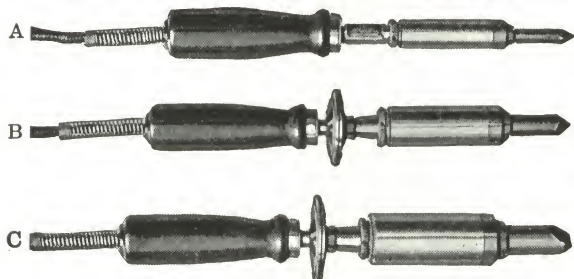
**AMERICAN BEAUTY ELECTRIC SOLDERING IRONS**

Fig. 5357

Indispensable wherever soldering is done. Durable. Always ready for use and being heated internally, it is possible to take the iron right to the work. Furnished complete with tip, super-flexible cord, lamp socket attachment plug and special heat-insulating stand. Tips are made of pure, rod copper, the outer surface being specially treated with a heavy coating of nickel to minimize oxidation. Flat chrome nickel heating element. Pure mica insulation. Wood handle. Specify voltage wanted.

No. Watts	Diameter of Tip	Length Overall	Weight Ounces	★NET EACH 1 or 2 3 or More	Extra Tips 1 or 2 3 or More
A 100	3/8 inch	12 1/4 inch	14	\$ 5.40 \$ 4.80	\$0.38 \$0.33
B 200	5/8 inch	13 inch	26	\$ 6.45 \$ 5.74	\$0.83 \$0.73
C 300	7/8 inch	13 3/4 inch	42	\$ 8.63 \$ 7.67	\$1.43 \$1.27
D 550	1 1/8 inch	15 1/4 inch	64	\$11.25 \$10.00	\$1.65 \$1.47

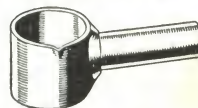


Fig. 5253

**MELTING CUPS (LADLES)**

For use with the 'American Beauty' Electric Soldering Irons as shown at the left. It is ideal for melting small quantities of solder, tin, lead, babbitt metal, etc. or for melting wax, etc. It is ready for use by removing the regular copper tip and inserting the shank of the cup. The melting time is approximately: 15 minutes for solder; and 30 minutes for babbitt metal. A shorter time is required for wax and similar substances.

For Capacity	Diam- eter	Depth	★NET EACH
Iron Solder, Inside	Cup, In.	Cup, In.	
A 3	1	1-1/8	\$0.95
B 12	1-1/2	1-1/2	\$1.60
C 17	1-3/4	1-3/4	\$2.20
D 30	2	2-1/8	\$3.20

**"REGULAR" ELECTRIC SOLDERING IRONS**

**GUARANTEED ONE YEAR.** 110 volt element. For either A.C. or D.C. Heating element is Chromel-A resistance wire wound on lava core that is endurable to intense heat. Heavy Chromel leads extend through the core beyond the range of intensive heat preventing corrosion or burning off the leads. Heavy element chamber functions as reservoir of surplus heat and medium for the rapid transmission of heat to the copper tip. Ventilated steel tube prevents transmission of heat to handle. Pure sheet mica and asbestos insulation. Two piece attachment plug.



Fig. 4309. Mfrs. 49

Consumes 55 watts. For radio and household use. Polished brass element chamber, lacquered. Five feet No. 18 cord. 3/8 inch diamond shaped screw tip.

Mfrs. 49 .. ★NET EACH, \$1.00  
Extra 49 Tip....★NET EACH, \$0.20

Fig. 4310. Mfrs. 56

Consumes 70 watts. For telephone, and light industrial use. Polished brass element chamber, lacquered. Six feet No. 18 heater cord. 1/2 inch diamond shaped screw tip

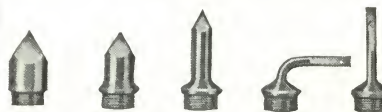
Mfrs. 56 .. ★NET EACH, \$2.00  
Extra 56 Tip....★NET EACH, \$0.20



Fig. 4311. Mfrs. 145

Consumes 200 watts. For heavy duty for mechanics and industrial plants. Heavy one-piece steel element chamber, heavily nickel plated and highly polished. Six feet No. 18 heater cord. 1 inch copper screw tip.

Mfrs. 145 ★NET EACH, \$4.25



D and E style tips are ideal for automobile radiator work.  
Extra 145 Tip....★NET EACH, \$0.65  
Any 4 Tips.....★NET SET, \$2.33



## SQUARE POINT SOLDERING COPPERS



Fig. No. 885

Made of drawn copper bolts of the best quality, and shaped under a hammer. This method produces superior coppers, as solid as the metal can be made. Do not compare with coppers which are cast from copper ingots. Larger sizes, prices on request.

## ★ NET POUND

Weight Pair	1 to 24 Pounds	25 to 49 Pounds	50 Pounds or More
1/2	\$0.58	\$0.52	\$0.49
1	\$0.44	\$0.38	\$0.35
1-1/2	\$0.41	\$0.35	\$0.32
2	\$0.40	\$0.34	\$0.31
2-1/2	\$0.39	\$0.33	\$0.30
3	\$0.38	\$0.32	\$0.29

## SOLDERING IRON HANDLES



Fig.	Material	Size, Inches	★ NET DOZEN
3024W	Wood	5 x 1 1/16	\$0.75
3024P	Paper	5 1/2 x 1 3/8	\$1.20

## CAST IRON SOLDER POTS



Fig. No. 824

Outside Diam., In.	Inside Diam., In.	Depth, In.	Liquid Capty., Pts.	Lead Capty., Lbs.	Approx. Wt., Lbs.	★ Net Each	Lots of 1 Dozen ★ Net Each
4	3 3/8	2 3/4	1	12	2 1/2	\$0.60	\$0.50
5	4 1/2	3	1 1/2	19	3	.72	.60
6	5 1/2	3 3/8	2	23	4 1/2	.90	.75
7	6 1/2	4	4	45	7	1.20	1.00
8	7 1/2	4 1/2	5 1/2	60	9 1/2	1.50	1.25
9	8 1/2	4 3/4	6	80	13 1/2	1.85	1.50
10	9 1/2	5 1/2	10	130	15	2.50	2.00
12	11 1/2	6	16	200	29	4.20	3.50
13 1/4	12 1/4	6	18	225	55	5.40	4.50

## CRESCENT TEMPERING COMPOUND

Fig. No. 3034. For tempering tools for toughness and hardness. Can is sufficient for 5 gallon solution. ★ NET CAN, \$1.50

## ALLEN'S SOLID SAL AMMONIAC

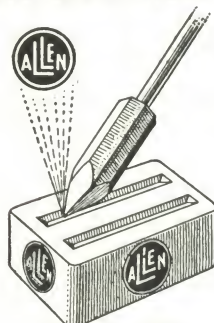


Fig. No. 2825

For cleaning and tinning the soldering copper. Outlasts five times its weight of the fibrous lump, keeps copper in good condition, does not crumble or corrode metal work near job or tools.

## ★ NET BAR

1/2 pound	1/2 pound	1 pound
\$0.20	\$0.27	\$0.48

## PLUMBERS' CANDLES



Fig. No. 2874

Standard size and weight.

★ NET DOZEN . . . . \$0.60

## ALLEN'S COMMUTATOR LUBRICANT



Fig. 3905

For use on commutators using either copper or carbon brushes. Restores a normal working condition and gives a "bright, clean face." Contains no acid or destructive ingredient; can be safely used on dynamos generating high potentials.

★ NET EACH, \$0.30

## NYE WIPING CLOTHS

Nye Wiping Cloths are absolutely perfect in quality, design, and workmanship. The material is superior to any used heretofore for the purpose.



Fig. No. 2856

## LIST PRICES PER DOZEN

Dimensions, Inches	Best Quality Her-ringbone Tick-ing—16-Ply		Genuine English Moleskin—8-Ply	
	Dry	Prepared for Use	Dry	Prepared for Use
2x2, 2 1/2 x 2 1/2, 2x3, 2 1/2 x 3, and 3x3	\$4.40	\$6.00	\$6.40	\$7.00
3 1/2 x 3 1/2	5.00	6.40	7.00	8.00
4x4	5.35	6.75	7.50	8.70

DISCOUNT . . . . . 30% OFF

## MELTING LADLES

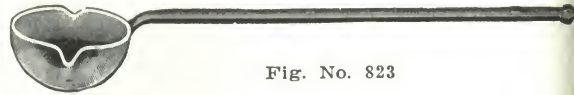


Fig. No. 823

Bowls of ladles: up to 6 inch diameter made of 14 gauge (1/8 inch) seamless sheet steel; 7 inch of 3/16 inch steel; larger sizes, 5/16 inch steel. Ladles larger than 7 inch have loop grips.

## ★ NET PRICES EACH

Diam., Inches	Bowl Depth, Inches	Length, Inches	Capacity		Weight, Lbs., per Doz.	★ Net Each	Lots of 1 Dozen ★ Net Each
			Liquid, Pts.	Lead, Lbs.			
2 1/2	1 1/8	10	1 1/8	1	7	\$0.30	\$0.25
3	1 1/2	11 1/2	1 1/4	1 1/2	10	.36	.30
3 1/2	1 3/4	12	1 3/8	2 1/2	13	.42	.35
4	2	14	1 3/4	4	17	.48	.40
5	2 1/2	19	2 1/4	8	31	.60	.50
6	3 1/4	21	1	13	41 1/2	.72	.60
7	3 3/2	24	2	23	90	2.50	2.00
8	4	26	3	34	126	3.75	3.00
9	4 1/4	30	4	47	162	4.80	4.00
10	4 3/4	36	7	68	192	6.00	5.00
12	6	40	10	112	276	7.00	6.00

## NEWWAY BOTTOM POUR LADLE

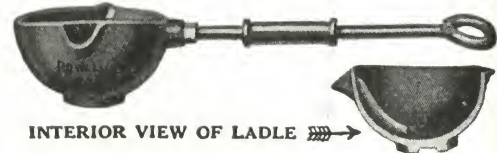


Fig. No. 3298

Pours clean metal from the bottom of the bowl. Avoids skimming, saves material and is easily operated. Bowl is made of refined gray iron. Handle is Swedes iron with steel check nut, with sliding hand protector which is a distinctive feature.

Numbers . . . . .	4	5	6	7	8
Diameter, inches . . . . .	4	5	6	7	8
Depth, inches . . . . .	2	2 1/2	3	3 1/2	4
Lead capacity, lbs. . . . .	4 1/2	9	18	25	40
Water capacity, pts. . . . .	1 1/2	1	2	3	4
Weight of Bowl, lbs. . . . .	1 3/4	3 1/2	4	6	9
Weight of Ladle, complete . . . . .	3	5	8 1/2	9	13
Length of handle, inches . . . . .	14	26	29	29	29
Size of handle, inches . . . . .	1/8	3/16	5/8	5/8	5/8
Length overall, inches . . . . .	20	31	35	36	37

★ NET EACH . . . . . \$2.40 \$2.70 \$3.60 \$3.90 \$4.20



ALLEN'S SOLDERING SALTS



Fig. No. 2334

Mixed with water, it makes a perfect liquid flux. Three parts of water to one part salts are usually used. This solution is strong enough to use on old metal. A gallon of water to one pound of salts makes an excellent flux for bright tin work.

★ NET PRICES

1/2 lb. Bottle	Net per Bottle, \$0.30
1 lb. Bottle	Net per Bottle, .40
5 lb. Bottle	Net per Bottle, 1.90
10 lb. Pail	Net per Lb., .35
25 lb. Pail	Net per Lb., .34
60 lb. Pail	Net per Lb., .32
100 lb. Pail	Net per Lb., .32

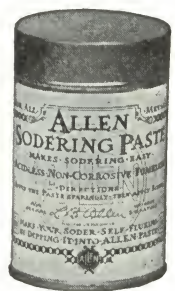
ALLEN'S SOLDERING PASTE

Fig. No. 2333

Will not corrode or injure surfaces in any way. Solder applied to this paste is self-fluxing.

★ NET PRICES

2 oz. Cans	Net per Can, \$0.12
4 oz. Cans	Net per Can, .22
8 oz. Cans	Net per Can, .36
1 lb. Pails	Net per Lb., .60
10 lb. Pails	Net per Lb., .51
25 lb. Pails	Net per Lb., .48
60 lb. Pails	Net per Lb., .48
100 lb. Pails	Net per Lb., .48



ALLEN'S SOLDERING LIQUID



Non-acid. For flat soldering as well as for surfaces involving small crevices ALLEN Soldering Liquid gives best results. In concentrated form. One to 3 parts of water may be added for dilute working solution. Makes a joint about three times as strong as muriatic acid flux, and one that is free from the dangers of subsequent corrosion. ALLEN fluxes are approved by the National Board of Fire Underwriters and are the only ones thus honored.

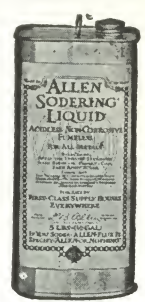


Fig. No. 039572

★ NET PRICES

2 Ounce Bottle	Net per Bottle, \$0.09
8 Ounce Bottle	Net per Bottle, .15
16 Ounce Bottle	Net per Bottle, .25
1/2 Gal. (or 5 lbs.)	Net per Can, 1.26
1 Gal. (or 10 lbs.)	Net per Can, 2.00
5 Gal. (or 50 lbs.)	Net per Lb., .20
12 1/2 Gal. (or 125 lbs.)	Net per Lb., .18
25 Gal. (or 250 lbs.)	Net per Lb., .15
50 Gal. (or 500 lbs.)	Net per Lb., .14

ALLEN'S SOLDERING STICK



Fig. No. 973

Applied by simply rubbing the stick on the joint, when heated, causing the solder to adhere firmly, making a perfect joint. There is no waste as the stick can be used down to the last particle. Always ready. No acid. Excellent for electrical work—will not corrode the wire nor affect the insulation. Package 1x5 1/2 inches.

★ NET EACH, \$0.18

ACID BRUSH OR SWAB



Fig. No. 3476

Style No.	Length Inches	Width Brush	★ NET DOZEN	★ NET GROSS
3476A	5 3/8	3/8	\$0.15	\$1.49
3476B	5 7/8	7/16	\$ .20	\$1.04

ALLEN ALUMI-FLUX AND ALUMI-SODER



Fig. No. 089040



Fig. No. 089041

Solders aluminum without the aid of acid or any other flux. Other metals may be soldered to aluminum with ordinary soder and sodering iron after the parts have been tinned. Melting point of Allen Alumi-Flux, 560° F. Melting point of Allen Alumi-Soder, 670° F. Full directions with each package.

Fig. No. 089040—Alumi-Flux, 4 sticks to lb.  
Fig. No. 089041—Alumi-Soder, 4 sticks to lb.  
★ NET POUND, \$2.00

50-50 WIRE SOLDER

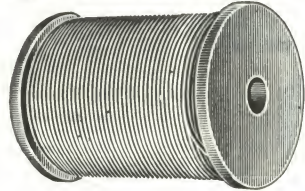


Fig. 3094

Orders billed at prices current when order is received, whether higher or lower than those here named.

1 Pound Spool	★ POUND, \$0.48
5 Pound Spool	★ POUND, \$0.46
10 Pound Spool	★ POUND, \$0.44
50 Pound Spool	★ POUND, \$0.39

5 and 10 pound spools are \$0.20 extra; 50 pound spools are \$0.50 extra; and are returnable.

BAR SOLDER



Fig. No. 2915

In rectangular or triangular bars. Orders billed at prices current when order is received, whether higher or lower than those here named.

★ NET POUND

1 to 9 Pounds	10 to 24 Pounds	25 or More Pounds
Warranted Half and Half (50-50)		
\$0.45-1/2	\$0.43-1/2	\$0.40
Plumbers' Solder, 40-60		
\$0.42	\$0.40	\$0.37

KESTER SELF-FLUXING WIRE SOLDER



ACID-CORE. For general utility, heavy duty, industrial and outdoor electrical work. Diameter about 1/4 inch. About 30 feet to the pound.  
ROSIN-CORE. For indoor electrical or radio work. Plastic, active, rosin-core flux. Leaves only a transparent residue. Prevents corrosion and electrical leakage. Diameter about 1/2 inch. About 50 feet to the pound.

Made only of virgin tin and lead of the highest grades obtainable. The fluxes incorporated are most efficient. No salt, acid or compound is necessary when using this.

Acid-core is always furnished unless Rosin-core is specified.

★ NET CARTON

Spool Pounds	★ NET 50 POUNDS	★ NET 100 POUNDS
1	\$0.61 Deduct 10%	Deduct 15%
5	\$0.59 Deduct 10%	Deduct 15%
10	\$0.54 Deduct 10%	Deduct 15%

10 metal cans in display carton.  
Solder-Acid-Core .....\$1.67  
Solder-Rosin-Core .....\$1.67  
Aluminum-Flux-Core .....\$1.67

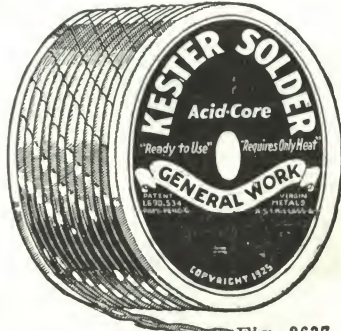


Fig. 2637



# BABBITT METALS, TIN AND LEAD

NOTE: Prices quoted on this page were correct when this book went to press. Orders, however, will be billed at lowest market prices current when order is received.

## COMMON BABBITT METAL

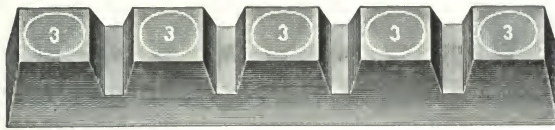


Fig. No. 2936

- No. 1. HIGH GRADE. For speed and heavy pressure.  
 No. 2. MEDIUM GRADE. For shafting, hangers and general machine purposes.  
 No. 3. GOOD GRADE. For general use.  
 No. 4. COMMON GRADE. For slow running machinery.

### ★ NET POUND

Grade No.	1 to 9 Pounds	10 to 24 Pounds	25 or More Pounds
1	\$0.18-1/2	\$0.16-1/2	\$0.14-1/2
2	\$0.17-1/2	\$0.15-1/2	\$0.13-1/2
3	\$0.16-1/2	\$0.14-1/2	\$0.12-1/2
4	\$0.16	\$0.14	\$0.12

## GENUINE BABBITT METAL



Fig. No. 879

Genuine. Made of Babbitt's original formula for fast running machinery, wood working and other high speed machines.

1 to 9 Pounds	★ NET POUND, \$0.77
10 to 24 Pounds	★ NET POUND, \$0.71
25 or More Pounds	★ NET POUND, \$0.65

## PHOENIX BABBITT METAL

Fig. No. 878



This is the highest grade of babbitt that is on the market. Suitable for the most exacting conditions, particularly adapted for automobile work.

★ NET POUND, \$0.79

## GENUINE XXXX NICKEL BABBITT



Fig. 4760

Performs where other babbitts fail. For important and severe bearing conditions. One of the toughest, most durable bearing alloys made. A fiberized babbitt that does not break under sledge hammer blows. A special processed metal giving maximum tensile and torsional strength. Recommended for all bearing service including high-powered, high-speed, heavy-duty machinery. Stands severe strains, jolts, loads, speeds, and stresses. Passes U. S. Government specifications.

1 to 111 Pounds	★ NET POUND, \$0.79
112 Pounds or More	★ NET POUND, \$0.74

## "BABBITRITE"

Fig. No. 3020



A material to retain molten Babbitt metal while pouring bearings. Adheres closely when applied, retains even consistency without drying out, free from moisture. Can be used and re-used more than 100 times without re-mixing or previous preparation such as clay or putty requires.

50 lb. pails.	★ NET PAIL, \$12.00
30 lb. pails.	★ NET PAIL, \$ 7.50
15 lb. pails.	★ NET PAIL, \$ 4.25

## ATLAS BABBITT METAL

Fig. 874

A babbitt metal that is hard and long-lived. It is easy-running and economical on oil. Made of combinations of specially refined and mixed metals. Atlas is a good, anti-friction metal that will do the work in the majority of places.

★ NET POUND  
\$0.25



## WING'S GRAPHITE METAL



Fig. No. 877

For dynamos, woodworking machinery, steamship locomotives, saw and paper mills, high-speed engine bearings. It saves oil, fuel, time and repair bill. Journals are durable, run cool and give perfect satisfaction.

★ NET POUND, \$0.35

## MAGNOLIA METAL



Fig. No. 876

Magnolia Metal sustains the heaviest loads; runs at highest speeds; has the lowest frictional coefficient and wonderful wearing quality; is not harmed by grit or dust; never seizes or scores the shaft. Saves oil, fuel, metal, power and cost of rebabbiting.

It is most economical and desirable for lining machinery bearings, also for Piston Packing, Bull Ring 1 to 111 Pounds.....★ NET POUND, \$0.35  
 112 Pounds or More.....★ NET POUND, \$0.30

## BLOCK TIN



Fig. No. 883

This is put up in bars weighing 1 to 1 1/4 pound. Also in pigs weighing approximately 100 pounds.

1 to 9 Pounds	★ NET POUND, \$0.80
10 to 24 Pounds	★ NET POUND, \$0.75
25 or More Pounds	★ NET POUND, \$0.70

## PIG LEAD

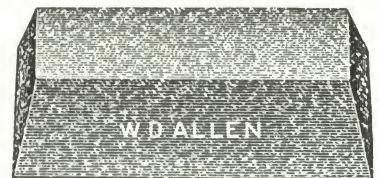


Fig. No. 880

Furnished in 5, 50 or 100 pound pigs.  
 1 to 9 Pounds.....★ NET POUND, \$0.11-1/2  
 10 to 24 Pounds.....★ NET POUND, \$0.10-1/2  
 25 or More Pounds.....★ NET POUND, \$0.09-1/2

## CRUCIBLES

Plumbago  
and Graphite

Fig. No. 884

Sizes and prices quoted upon application





**SHEET LEAD**

Rolls of sheet lead average 20 feet in length and from 7 to 9 feet in width. A square foot of lead in thick weighs 60 lbs.

**APPROXIMATE WEIGHTS AND SIZES**

Pounds per square foot	Wire Gauge	Approx. Thickness, Inches
2½	17	1/24
3	16	1/20
3½	15	1/18
4	14	1/16
4½	13	1/14
5	12	1/12
6	11	1/10
7	10	1/9
8	9	1/8
9	8	9/64
10	7	1/6
11	6	3/16
12	5	1/5

**Market Prices****CHAIN PULLS**

Fig. No. 2636

Wooden chain pulls, nicely finished and provided with a rubber ring around largest part as illustrated.

★ NET DOZEN, \$2.40

**BRASS AND STEEL PLUMBERS SAFETY LINK CHAIN**

Fig. 869

**LIST 100 FEET**

Links To Foot	Brass	Steel	Extra Nickel Plating
31	\$3.50	\$3.00	\$0.15
29	\$4.00	\$3.00	\$0.15
24	\$5.00	\$3.50	\$0.15
20	\$6.25	\$4.00	\$0.25
16-1/2	\$8.00	\$5.00	\$0.35
16-1/2	\$10.00	\$6.00	\$0.35
22	\$11.50	\$7.75	\$0.35
21	\$13.00	\$8.00	\$0.35
19-1/2	\$14.50	\$9.00	\$0.35

**DISCOUNTS**

100 Foot Lengths . . . . .40% OFF  
100 Feet on Reel . . .50-5% OFF

**LEAD PIPE IN COILS****Approximate Weight Per Ft.**

We can furnish any grade wanted on short notice at market prices.

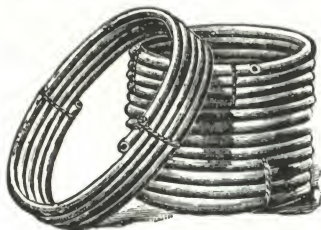


Fig. No. 886

Size, In.	¾	½	¾	1	1½
Aqueduct, lbs. per ft.	1½	5	¾	1	1½
Extra light, lbs. per ft.	1½	5	¾	1½	2
Light, lbs. per ft.	1½	5	¾	1½	2½
Medium, lbs. per ft.	1½	5	¾	2	3
Strong, lbs. per ft.	1½	5	¾	2½	3½
Extra strong, lbs. per ft.	1½	5	¾	3	4
Extra, extra strong, lbs. per ft.	1½	5	¾	3½	4½

Size, In.	1	1½	2	3	4	5	6	7	8	9	10	11	12
Aqueduct, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3
Extra light, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3
Light, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3
Medium, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3
Strong, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3
Extra strong, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3
Extra, extra strong, lbs. per ft.	1½	2	3	3	3	3	3	3	3	3	3	3	3

**Approximate Weights of Full Coils Lead Pipe**

Aqueduct	90 pounds
Extra light and light	100 to 180 pounds
Strong, extra strong, double extra strong	200 pounds

**Market Prices****BASIN, BATH AND WASH TRAY CHAINS**

Fig. No. 871

Basin chain with snap; length 16½ in.	
Bath tub chain with snap; length 26½ in.	
Tray chain with snap; length 19½ in.	

**LIST PRICES PER DOZEN**

Size	Basin Chain	Bath Tub Chain	Tray Chain
00	\$1.00	\$1.40	\$1.15
0	1.20	1.65	1.35
1	1.40	2.00	1.60
2	1.60	2.45	1.95

DISCOUNT . . . . .50-5% OFF

**Net Extra for Nickel Plating**

Basin Chain, Net extra per doz.	\$0.10
Bath Chain, Net extra per doz.	.15
Tray Chain, Net extra per doz.	.12

**MECHANICS' TOOL BAGS**

Fig. No. 225

All canvas, white, strongly made.

**★ NET PRICES EACH**

Size No.	Dimensions Inches	Net Each
14	14x13½x5½	\$2.50
16	16x13½x5½	2.75
18	18x15½x5½	3.00

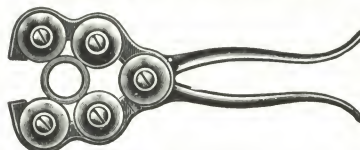
**LEAD PIPE CUTTERS**

Fig. No. 2151

Will cut lead pipe from ¾ to 1½ in. Leaves no chips. Wt. per doz. 10½ lbs.

★ Net Each, \$1.35

**BRASS SPLIT LINKS**

Fig. No. 873

Fig. No. 872, large size.  
List Per Gross, \$1.75  
Fig. No. 873, small size.  
List Per Gross, 1.50

DISCOUNT . . . . .50-5% OFF

Net extra for nickel plating, either size.

★ Net Per Gross, \$0.10

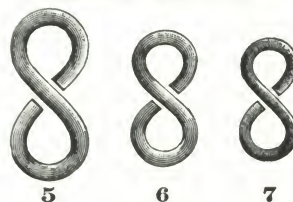
**EIGHT HOOKS**

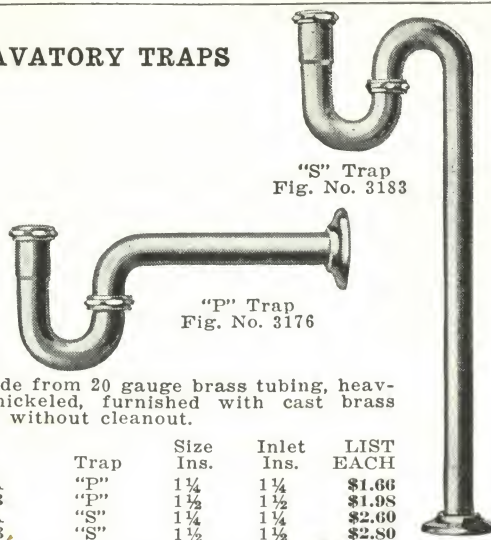
Fig. 5101

Size No.	Length Inches	LIST GROSS Plain	GROSS Nickel Plated
5	7/8	\$1.10	\$1.20
6	3/4	\$0.90	\$1.00
7	5/8	\$0.85	\$1.05

Lots Up to 143  
STEEL 40% OFF 70% OFF  
BRASS 30% OFF 50-5% OFF



## LAVATORY TRAPS



Made from 20 gauge brass tubing, heavily nicked, furnished with cast brass nuts, without cleanout.

Fig. No.	Trap	Size Ins.	Inlet Ins.	LIST EACH
3176A	"P"	1 1/4	1 1/4	\$1.66
3176B	"P"	1 1/2	1 1/2	\$1.98
3183A	"S"	1 1/4	1 1/4	\$2.60
3183B	"S"	1 1/2	1 1/2	\$2.80

## SINK TRAPS

Fig. 3190

**Swivel Type.** All cast brass outlet elbow. Tapped 1 1/2 inch iron pipe. Ground joint swivel. Rough nickel plated all over. 1 1/2 inch inlet.

LIST EACH, \$1.22

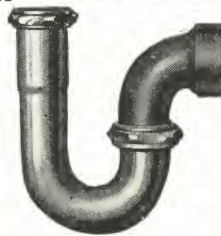
P. O. PLUG  
FOR  
LAVATORIES

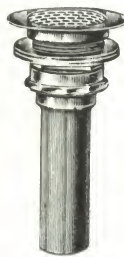
Fig. 3177

Fit Fig. No. 3176 and 3183 lavatory traps above 3 in. long, tailpiece 5 1/2 in. long. Made of heavy wrought brass, highly nicked. Complete with Mack washer and basin chain.

No. 3177—1 1/4 in. Tailpiece.

LIST EACH, \$0.64

## SINK PLUGS



Heavy body allows full size iron pipe thread. 3 inch flange. With strainer. Nickel plated.

Fig. 2942A — 1 1/4 x 4 inch tailpiece.

Each ... \$0.64

Fig. 2942B — 1 1/2 x 4 inch tailpiece.

Fig. 2942 Each ... \$0.66

EXTRA TAILPIECES

Inches	LIST EACH
1 1/2 O.D. x 8 inches	\$0.26
1 1/2 O.D. x 10 inches	\$0.30
1 1/2 O.D. x 12 inches	\$0.36

Fig. 2942T



## SINK CONNECTION

Fig. 3833

LIST EACH

1-1/4x6	\$0.32	1-1/2x6	\$0.40
1-1/4x8	\$0.36	1-1/2x8	\$0.44
1-1/4x10	\$0.40	1-1/2x10	\$0.50
1-1/4x12	\$0.44	1-1/2x12	\$0.58

## EXTENSION TUBE

LIST EACH

Fig. 3834. TO SLIP

1-1/4x6	\$0.48	1-1/2x6	\$0.52
1-1/4x8	\$0.52	1-1/2x8	\$0.56
1-1/4x10	\$0.56	1-1/2x10	\$0.60
1-1/4x12	\$0.60	1-1/2x12	\$0.64

Fig. 4582 TO SOLDER

1-1/4x8	\$0.32	1-1/2x8	\$0.32
1-1/4x10	\$0.36	1-1/2x10	\$0.36
1-1/4x12	\$0.40	1-1/2x12	\$0.40

Fig. 3833



Fig. 3834

## NICKEL PLATED COVERS

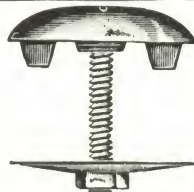
Fig. No. 2314

Cock hole cover for bath tubs, sinks and lavatories.

LIST EACH, \$0.11

Overflow hole cover for bath tubs.

LIST EACH, \$0.33



## DISCOUNT

{ Nickel Plated, or as Shown ..... 20% OFF  
{ Chromium Plated ..... LIST PLUS 10%

## NICKEL PLATED SHOWER BATH HEAD

Shower heads, made of copper, highly nickel plated and provided with patented air valve "A." This feature allows the water, that would otherwise remain in the shower after the pressure is turned off, to drain quickly.



Fig. No. 30B

LIST PRICES  
EACH

Inches Face,	Inches I. P. T.,	Each List
4	1/2	\$1.35
5	1/2	\$1.53
6 1/2	1/2	\$1.80
8	3/4	\$2.87
10	1	\$7.34
12	1	\$10.67

## CONNECTED WASTE AND OVERFLOW

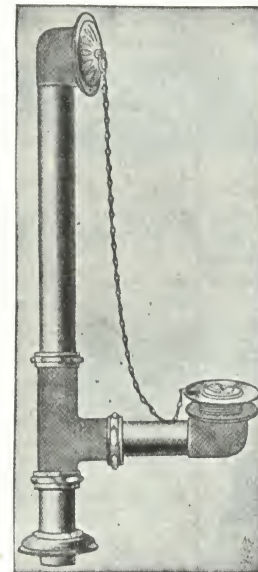


Fig. No. 3184

Adjustable Type  
for Bath Tubs

Fig. 3184

1 1/2 in. O. D., adjustable type, made from 22 gauge brass tubing, polished and nicked, cast brass top and bottom elbows, cast brass tee and hexagon nuts, cast brass overflow and waste strainers, solid chain stay.

LIST EACH, \$2.60

List Extra for Chain, \$0.10

## DRAIN ELL

Fig. 3184W

1 1/2 inch nickel plated tubing, complete with waste, elbow to tee.

LIST EACH, \$1.10

OVERFLOW  
STRAINER

Fig. No. 3186

Light pattern, wrought brass, nickel plated, 3 1/2 in. O. D.

LIST EACH, \$0.10

## WASTE PIPE CONNECTION

Fig. No. 3539

Saves time and assures a perfect joint. For use on waste pipes. Double ground joint. Threaded Iron Pipe size male, with nickel plated slip joint nut.

Size, Inches	LIST EACH
1 1/4, Slip 1 1/4 Casing	\$0.52
1 1/2, Slip 1 1/2 Casing	\$0.53
1 1/2, Slip 1 1/4 Casing	\$0.53



## HEXAGON SLIP NUTS

Cast Brass, Nickel Plated

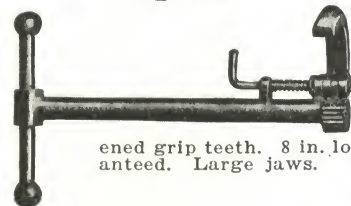


Fig. No. 3187

Tapped 1 1/4 in. I. P. T.	LIST
1 1/4 inch opening	100
Tapped 1 1/2 in. I. P. T.	\$13.53
1 1/4 inch opening	\$17.65
1 1/2 inch opening	\$17.65
1 1/2 inch opening	\$15.85
Tapped 2 in. I. P. T.	
2 inch opening	\$26.36

## ANDREE BASIN WRENCH

Fig. 3383



ened grip teeth. 8 in. long. anteed. Large jaws.

Practical and handy for all size basin nuts, ball cocks, flush valves, etc.

Reversible jaw, operates right or left. Drop forged steel with hardened.

LIST EACH, \$2.34

20% OFF

LIST PLUS 10%



CAST IRON SINK TRAPS

Full "S" Type

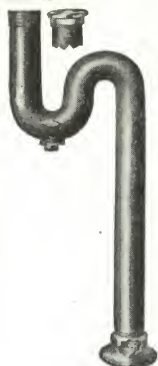
Length over all about 2 ft., being the usual height for use under kitchen sinks, the floor flange permitting adjustment of about 1 inch in height. Threaded for iron pipe and fitted with two brass cleanout screws.

Note: For sink couplings, see page 196.



No. 1  
Fig. No. 896

With bell end at top.



No. 2  
Fig. No. 897

Threaded both ends for Iron Pipe.

LIST PRICES EACH

Size, In.	Fig. No. 896 List Each	Fig. No. 897 List Each
1 1/4	\$1.50	\$1.50
1 1/2	2.00	2.00

Half "S" Type

A coupling, 45° ell or 90° ell, will make of this trap either a "P" trap, 3/4 "S" trap, or full "S" trap. Outlet may be swung in any direction desired.



No. 3  
Fig. No. 898

With bell end at top.



No. 4  
Fig. No. 899

Threaded both ends for Iron Pipe.

LIST PRICES EACH

Size, In.	Fig. 898 List Each	Fig. 899 List Each
1 1/4	\$0.75	\$0.75
1 1/2	1.00	1.00

PRICE ..... LIST NET

CAST IRON BOTTLE TRAP

Female thread both ends. Complete with brass cleanout screw. Can be furnished galvanized or painted white enamel at extra charge.

1 1/4 inch.....List Each, \$1.00  
1 1/2 inch.....List Each, 1.50

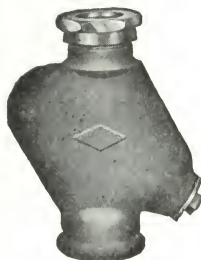


Fig. No. 3530

PRICE ..... LIST NET



Fig. No. 1965

Outside thread inlet and inside thread outlet. On 1 1/4 inch traps, the slip joint nut fits 1 1/4 inch traps or 1 1/4 inch outside diameter tube. On 1 1/2 inch traps, the slip joint nut fits 1 1/2 or 1 1/4 outside diameter tube as desired but is regularly sent to fit 1 1/2 inch outside diameter tube. Can also be fitted for basin plug.

Iron pipe, 1 1/4 inch. List Each, \$1.25  
Iron pipe, 1 1/2 inch. List Each, 1.80

CAST IRON SINK TRAPS

Brass cleanout screw. Threaded for iron pipe. Nickel-plated slip joint nut at top fits waste tubes of sinks, etc., on 1 1/4 inch trap fitting 1 1/4 inch waste tube; and on 1 1/2 inch trap fitting 1 1/2 or 1 1/4 inch waste tube, as ordered, but are regularly sent to fit 1 1/2 inch waste tube. Painted.

No. 3528. With slip joint inlet and outside thread outlet.

No. 3529. Length overall, about 2 feet, floor flange giving an adjustment of about one inch.

Size I.P.T.	List Each	No. 3528	No. 3529
1 1/4 inch	\$1.00	\$1.75	
1 1/2 inch	1.30	2.30	

PRICE ..... LIST NET

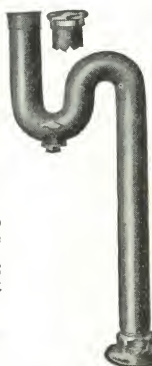
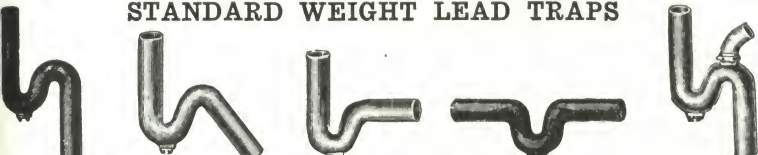


Fig. No. 3529

STANDARD WEIGHT LEAD TRAPS



Full S Fig. No. 887    3/4 S Fig. No. 888    Half S or P Fig. No. 889    Running Fig. No. 890    Full S with Vent Fig. No. 891

Regular Traps, Fig. Nos. 887-891

LIST PRICES EACH									
Plain					Vented				
1 1/4	1 1/2	2	3	4	1 1/4	1 1/2	2	3	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Size, Inches.....					Vent, Inches.....				
.....					.....				
\$0.58	\$0.90	\$1.38	\$2.69	\$3.25	Full S.....	\$1.38	\$1.85	\$2.33	\$2.63
.55	.81	1.30	2.62	3.07	3/4 S.....	1.35	1.76	2.25	2.55
.51	.75	1.20	2.24	2.49	1/2 S or P.....	1.31	1.70	2.15	2.45
.48	.72	1.13	2.09	2.53	Running.....	1.28	1.67	2.08	2.38
.52	.76	1.34	2.46	3.15	Running Y.....	1.32	1.71	2.29	2.59
.68	1.08	1.73	3.35	4.77	Bag.....	1.48	2.03	2.68	2.98

Extra Long Traps, Fig. Nos. 892 and 893

LIST PRICES EACH									
Plain					Vented				
1 1/4	1 1/2	2	.....	Size, Inches.....	1 1/4	1 1/2	2	.....	Size, Inches.....
.....	.....	.....	.....	Vent, Inches.....	.....	.....	.....	.....	Vent, Inches.....
\$0.93	\$1.36	\$2.00	.....	Full S.....	\$1.73	\$2.31	\$2.95	.....	Full S.....
.85	1.19	1.76	.....	3/4 S.....	1.65	2.14	2.71	.....	3/4 S.....
.76	1.02	1.55	.....	1/2 S or P.....	1.56	1.97	2.50	.....	1/2 S or P.....
.83	1.15	1.67	.....	Running.....	1.62	2.10	2.62	.....	Running.....
.82	1.15	1.82	.....	Running Y.....	1.63	2.10	2.77	.....	Running Y.....
1.09	1.58	2.34	.....	Bag.....	1.89	2.53	3.29	.....	Bag.....

Full S, Long Outlet.  
Fig. No. 892

Full S, Long Inlet  
Fig. No. 893

PRICE ..... LIST NET

SINK COUPLINGS



Fig. No. 861

For Lead Pipe...★ Net Each, \$0.10



Fig. No. 862

For Iron Pipe. Tapped for 1 1/4 or 1 1/2 in. iron pipe...★ Net Each, \$0.20

OPEN SINK STRAINER  
Nickel Plated Brass

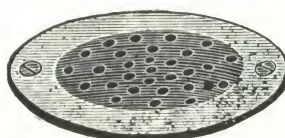


Fig. No. 859

Actual diameter 4 3/4 inches. For 5 inch opening. LIST EACH, \$0.16  
DISCOUNT .....25% OFF



# BALL COCKS (Float Valves)

## FLOAT VALVES

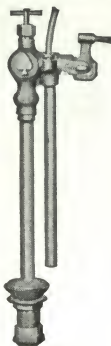


Fig. 4554  
"ACE"

A patented, advertised ball cock. Heavy pattern. Removable monel metal seat.

★ NET EACH,  
\$1.84

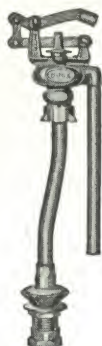


Fig. 4555  
"DUCE"

Heavy pattern, cast, by pass type. China Seat. Offset shank.

★ NET EACH,  
\$1.65



Fig. 4556  
"JACK"

Small pattern. A satisfactory ball cock at a low price.

★ NET EACH,  
\$1.43

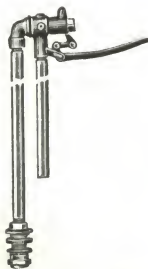


Fig. 3247  
HEAVY WT.  
Elevated, Wolff pattern, with 5/8 or 3/4 inch shank.

★ NET EACH,  
\$2.20

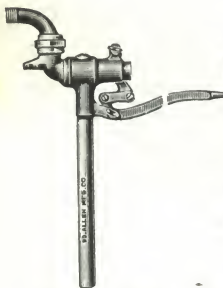


Fig. No. 3079

Top supply, with 1/2 or 3/8 in. coupling.

★ NET, \$1.40



Fig. No. 2078

Bottom supply, with 1/2, 3/8 or 3/4 in. shank.

★ NET, \$1.32

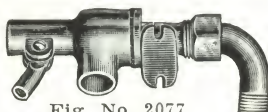


Fig. No. 2077

Fig. No. 2077, top supply, with 1/2 or 3/4 in. coupling.

★ NET EACH, \$0.80

## 'ALLEN' BALL COCK

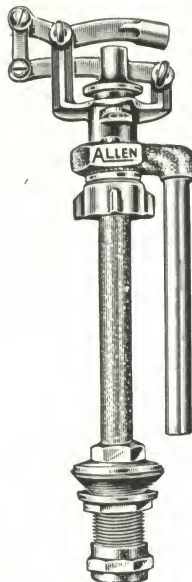


Fig. 2339

A heavy weight, elevated, ball cock for low down tanks with 5/8 or 3/4 inch shank. With removable seat. Made of cast brass. SPECIFY BRASS or CHINA SEAT.

★ NET EACH  
\$1.32

## CAPS FOR BALLCOCKS



RUBBER WASHER

Fig. No. 2783

Cap and washer complete.

★ NET DOZEN, \$0.92

Rubber washer only.

★ NET DOZEN, \$0.07

## LEATHER WASHERS

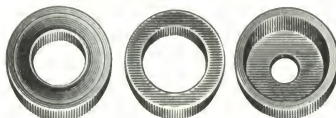


Fig. 3791-3 Fig. 3791-4 Fig. 3791-5

Leather washers for ball cocks.

Fig. No.	Shape	★ NET 100
3791-3	Flat	\$0.77
3791-4	Flat	\$0.77
3791-5	Cup	\$2.37

## SEATS AND WASHERS FOR BALL COCKS

### EXTRA SEATS

Fig.	Material	★ NET EACH
5205B	Brass	\$0.19
5205C	China	\$0.14
5205M	Monel Metal for Ace	\$0.19

### RUBBER WASHERS

Fig.	Size	★ NET EACH
4630S	Small	\$0.09
4630L	Large	\$0.12

## COPPER BALL FLOATS



Fig. No. 1604. Size, 4 by 5 Inches

★ NET EACH .....\$0.30  
★ NET DOZEN .....\$2.40

## BRASS FLOAT ROD

★ NET EACH, \$0.10

## DOUBLE ACTION PUSH LEVER



Fig. No. 2871

Complete with porcelain handle.

★ NET EACH, \$0.60

Extra porcelain handles.

★ NET EACH, \$0.12

Extra porcelain handles and spud.

★ NET EACH, \$0.25

## TRIP LEVERS



Fig. 4557

### PUSH TYPE

Chromium finish button and escutcheon.

★ NET EACH, \$0.60



Fig. 4558

### "DUCE"

Handle and escutcheon is chromium finish on die casting. Double action.

★ NET EACH, \$0.63

## CLOSET SCREWS

Nickel plated. 2 1/4 inch under head. With washer.



Fig. 2315A. "A" Pattern

★ NET DOZEN, \$0.36



Fig. 2315B. "B" pattern

★ NET DOZEN, \$0.48



## TOILET SEATS—Best Quality

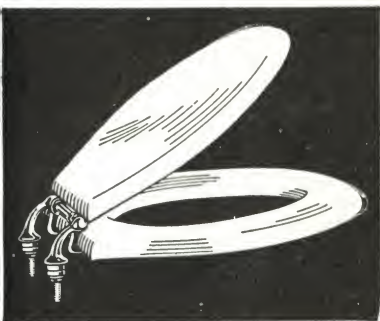


Fig. No. 3100-57

White "Duco" finish, sanitary, absolutely waterproof, will not stain nor change color; hard and smooth, will not check, crack, split nor peel.

## ★ NET EACH

Nickel Plated Hinges .....\$2.50  
Chromium Plated Hinges ..\$2.65

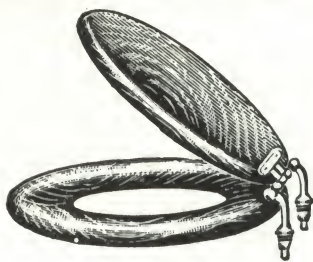


Fig. 2092

GOLDEN OAK—or—  
IMITATION MAHOGANY

Heavy brass bar hinge. Bumpers. Has a 1/2 by 8-1/2 inch hickory dowel glued in each end of seat. SPECIFY FINISH.

## ★ NET EACH

	1	3 or	1	3 or
Seat, Weight	or 2	More	or 2	More
Nickel Plated Hinges	\$2.30	\$2.10	\$2.50	\$2.30
Chromium Plated Hinges	\$2.50	\$2.30	\$2.70	\$2.50

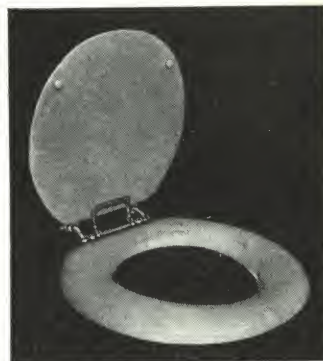


Fig. 4763

Made of selected birch. 1-1/4 inch seat. With bumpers. Chrome plated bar hinges.

White Celluloid Sheet Covered

## ★ NET EACH, \$3.75

Mother of Pearl

## ★ NET EACH, \$5.75

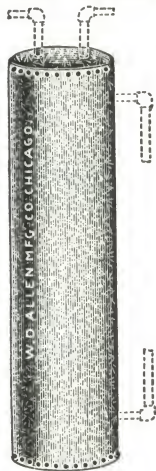
GALVANIZED  
RANGE BOILERS

Fig. 845

## STANDARD WEIGHT

Maximum working pressure 85 pounds. With standard tapping.

Capacity Gallons	Size Inches	Riveted ★ NET EACH	Welded ★ NET EACH
30	12x60	\$7.59	\$7.21
40	14x60	\$10.71	\$10.13
52	16x60	\$15.63	\$14.90
66	18x60	\$23.34	\$22.22
82	20x60	\$25.87	\$24.64
100	22x60	\$28.45	\$27.11
120	24x60	\$32.67	\$31.11
144	24x72	\$39.01	\$37.15

Lots of 6 or More .....5% OFF

## EXTRA HEAVY

Maximum working pressure 150 pounds. With standard tapping.

Capacity Gallons	Size Inches	Riveted ★ NET EACH	Welded ★ NET EACH
30	12x60	\$9.38	\$8.83
40	14x60	\$12.48	\$11.82
52	16x60	\$18.99	\$18.05

Lots of 6 or More .....5% OFF

## RANGE BOILER STANDS

## TRIPOD Fig. 150C

Adjustable from 12 to 14 inches. For 30 and 40 gallon boilers. 5-1/2 pounds .....★ NET EACH, \$0.50

## HAWKS UNIVERSAL Fig. 191

Fits any size boiler. Furnished with 3/4x3/4x3/4 or 3/4x3/4x1 inch tee .....★ NET EACH, \$1.60

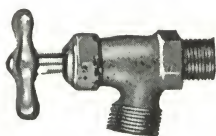
BOILER SEDIMENT  
FAUCETS  
(DRAIN COCKS)

Fig. 2175

1/2 Inch

1/2 inch. For draining off water from heating systems.

★ NET EACH .....\$0.38

3/4 inch .....★ NET EACH, \$0.47

ANGLE RELIEF  
VALVE

For Range Boilers. Private Water Systems and Water Heaters

Fig. 4761



Suitable for air, cold water, hot water and low pressure steam. Made of cast red brass. Phosphor bronze spring. Non-vulcanizing renewable disc. Set for 60 pound pressure and can be adjusted by yourself with adjusting screw (inside protecting cover cap) from 10 up to 75 pounds pressure.

Inlet	Outlet	★ NET EACH
1/2 Male	1/2 Female	\$1.25
3/4 Male	1/2 Female	\$1.50

## GALVANIZED MALLEABLE IRON BOILER FITTINGS



Fig. No. 1055



Fig. No. 1056



Fig. No. 1057



Fig. No. 1058

## LIST PRICES EACH

Size, Inches.....	Female 3/4 x 3/4 x 1	Male 3/4 x 1/2 x 1	Female 1/2 x 1/2 x 1	Male 1/2 x 1/2 x 1
Fig. No. 1055 Boiler Elbows.....	\$0.40	\$0.40		\$0.40
Fig. No. 1056 Boiler Elbows, with Union (new pat.).....	.75	.75		.60
Fig. No. 1058 Boiler Coupling....	.40	.40		.40
Fig. No. 1057 Boiler Coupling, with Union .....	.75	.75		.60

DISCOUNT (Figs. 1055, 1058 and 1057 .....47% OFF  
{ Fig. 1056 .....35% OFF

## BOILER TAP PLUG

Fig. 2149

For repairing leaks in boilers, radiators, pipe fittings, etc. Easy to operate, screwed in with any ordinary wrench.

No.	Size	★ NET DOZEN
1.	1/4 in.	\$1.50
2.	5/16 in.	\$1.50
3.	3/8 in.	\$1.75
4.	1/2 in.	\$2.00





## SEWER ROD

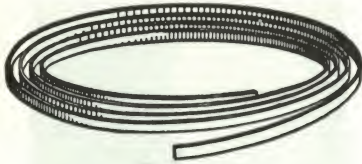


Fig. 2944

## FLAT SPRING STEEL

Not oil tempered. They will not crystalize and snap.

Length Feet	Size Inches	Rod only LIST EACH	With Roller Head LIST	With Spiral Head LIST
25	3/4x1/8	\$1.09	\$2.75	\$3.30
50	3/4x1/8	\$1.86	\$3.52	\$4.08
75	3/4x1/8	\$2.75	\$4.42	\$4.97
100	3/4x1/8	\$3.50	\$5.22	\$5.77
25	1-1/4x1/8	\$1.67	\$3.89	\$4.44
50	1-1/4x1/8	\$3.00	\$5.22	\$6.00
75	1-1/4x1/8	\$4.53	\$6.75	\$7.30
100	1-1/4x1/8	\$5.66	\$7.88	\$8.44
25	1-1/2x1/8	\$2.00	\$4.22	\$4.77
50	1-1/2x1/8	\$4.00	\$6.22	\$6.77
75	1-1/2x1/8	\$6.00	\$8.22	\$8.79
100	1-1/2x1/8	\$7.77	\$9.99	\$10.55
DISCOUNT ..... 25% OFF				

Fig. 5281

## OIL TEMPERED STEEL

Will straighten out and lay flat for use in sewer. Will not curl after constant use. Will withstand unusual abuse.

Length Feet	Size Inches	Rod only LIST EACH	With Roller Head LIST	With Spiral Head LIST
25	5/8x3/32	\$2.40	\$4.00	.....
50	5/8x3/32	\$4.80	\$5.50	.....
75	5/8x3/32	\$7.20	\$7.75	.....
100	5/8x3/32	\$8.55	\$9.00	.....
25	3/4x1/8	\$3.70	\$5.45	\$6.00
50	3/4x1/8	\$7.40	\$8.50	\$9.00
75	3/4x1/8	\$10.35	\$11.50	\$12.00
100	3/4x1/8	\$14.35	\$15.50	\$16.00
25	1 x1/8	\$4.40	\$6.40	\$7.00
50	1 x1/8	\$8.80	\$9.70	\$10.20
75	1 x1/8	\$12.80	\$13.35	\$13.80
100	1 x1/8	\$16.80	\$18.20	\$18.90
25	1-1/4x1/8	\$5.55	\$7.60	\$8.00
50	1-1/4x1/8	\$11.10	\$12.95	\$13.30
75	1-1/4x1/8	\$16.60	\$17.90	\$18.20
100	1-1/4x1/8	\$21.10	\$22.70	\$23.10
DISCOUNT ..... 20% OFF				

Fig. 5282

## SEWER ROD CARRYING FRAME

Made of flat steel. Will hold up to 100 feet.

For 5/8, 3/4, 1 or 1-1/4 Inch. **★ NET, \$1.25**  
For 1-1/2 Inch.. **★ NET EACH, \$1.65**

LIGHT WEIGHT  
SEWER ROD

Fig. 5283

Oil tempered steel 1/16 inch thick, very flexible. With slide handle. With split ball roller head.

Length Feet	LIST EACH	
	1/2x1/16 Inch	3/4x1/16 Inch
25	\$2.50	\$4.00
50	\$4.50	\$6.00
75	\$6.00	\$8.00
100	\$8.00	\$10.00
DISCOUNT ..... 20% OFF		

"BLUE SEAL"  
DRAIN PIPE SOLVENT

Fig. No. 2873

For preventing and cleaning solidly clogged and sluggish drains in sinks, lavatories, floor traps, etc. Effective for thawing frozen pipes. Prevents germ breeding and disease. Eliminates foul odors. Cleans heating boilers. Destroys accumulations of lint, cloth, hair, slime, grease, sponge, chamois, vegetable matter, cigarette butts and chewing tobacco. Will not destroy or dissolve glass, metal or similar solid substances. Can has small cap opening permitting a direct charge of the material into the pipe or trap. UNCONDITIONALLY GUARANTEED.

1 lb. Cans (36 1-pound cans in carton). **★ NET DOZEN, \$4.25**

2 lb. cans (12 2-lb. cans in carton). **★ NET DOZEN, \$7.20**

## SPIRAL SEWER ROD HEAD



Fig. 4038

Has only one working part. Acts like an auger when pushed into the sewer pipe. The head is made of malleable iron. The spindle is hand forged.

**★ NET EACH, \$1.75**

## ROLLER SEWER ROD HEAD

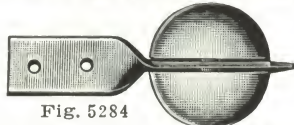


Fig. 5284

With two cast iron half balls that roll as it is pushed.

Size	Fits Rod	★ NET EACH
3/4 RH	3/4 or 1 Inch	\$0.90
1-1/4 RH	1-1/4 or 1-1/2 Inch	\$1.30

## WASTE PIPE CLEANER

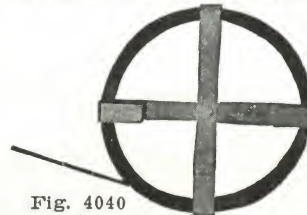


Fig. 4040

1/4 inch oil tempered fish tape of great flexibility and flat steel holder.

Length Feet	Loop End	Split Ball	Roller Head
25	★ NET EACH	\$0.75	\$0.90
50	★ NET EACH	\$1.30	\$1.75
75	★ NET EACH	\$2.05	\$2.65

## CLEANOUT SPRING

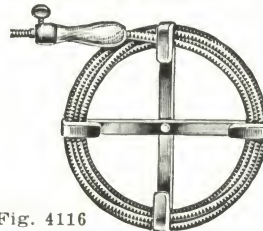


Fig. 4116

Made of coiled Swedish steel music wire. Handle clamps at any point on the spring. Flat steel frame.

Length Feet	★ NET EACH		
	1/4 Inch Drain	3/8 Inch Drain	1/2 Inch Drain
15	\$2.80	\$4.40	\$5.55
25	\$3.90	\$6.55	\$7.50
50	....	\$11.65	\$13.70

## TOILET AUGER



Fig. 2037

Auger consists of a non-split handle, brass tube and coil wire spring. It is made so the spring will not leave the tube which prevents breakage at the end of the rod.

Made with oil tempered wire coil spring, black japanned.  
3 Foot Spring... **★ NET EACH, \$1.25**  
6 Foot Spring... **★ NET EACH, \$1.50**

Fig. 5285

## SWEDISH SPRING STEEL

Made with Swedish steel music wire coil spring.

3 Foot Spring... **★ NET EACH, \$1.65**  
6 Foot Spring... **★ NET EACH, \$2.05**

Fig. 5286

## HEAVY SERVICE MODEL

Made with EXTRA FLEXIBLE rust proofed Swedish steel music wire coil spring. Has TWO cast aluminum handles. Rust proofed steel tube with rubber cover at end to prevent marring of the bowl. Especially made for plumbers and maintenance men.

3 Foot Spring... **★ NET EACH, \$5.50**

CATCH  
BASIN SCOOP

Fig. 3252

Heavy galvanized scoop to be attached to pipe handle. (Handle extra.) **★ NET EACH, \$0.95**



CAST IRON CESS POOLS WITH BELL TRAPS



Fig. No. 863

Hinge Strainer

★ NET PRICES EACH

Size, In.	Outlet In.	Net Each
6x6 .....	2	\$0.55
9x9 .....	3	\$1.00
13x13.....	4	\$1.90

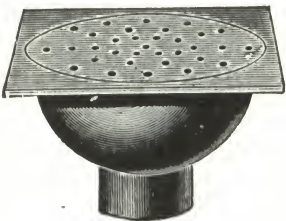


Fig. No. 864

Loose Strainer

★ NET PRICES EACH

Size, In.	Outlet In.	Net Each
6x6 .....	2	\$0.45
9x9 .....	3	\$0.90
13x13.....	4	\$1.70

ROUND BAR STRAINERS



Fig. No. 860

LIST PRICES EACH

Diam., In.	List Each
4.....	\$0.20
5.....	.25
6.....	.30
7.....	.50
8.....	.65
9.....	.80
10.....	1.05
12.....	1.30
DISCOUNT .....	50-10% OFF

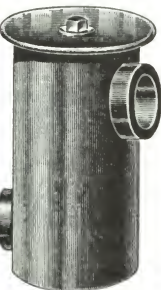


Fig. No. 2945

CAST IRON DRUM TRAP

With Nickel Plated Extension Cover

Height, 8 in., outside diameter 4 in. 2 tappings, 1½ in. iron pipe thread. Painted. Complete with nickel plated cover. ★NET EACH, \$1.05

Nickel plated drum trap covers only, size 3 in., for 4 in. cast iron drum traps. ★ NET EACH, 40c

Fiber Gaskets for drum traps above.

★ NET DOZEN, 24c

NO. 1 TRIUMPH BACK WATER VALVE



Fig. No. 2317 ★ NET EACH, \$1.95

Double acting, with automatic copper ball, closes up to heavy rubber seat, also brass disc, closes by hand. Diam. 4 inches



Fig. No. 2319

GALVANIZED ROUND FLOOR DRAIN

Specially adapted for refrigerator use.

6 inch....★ NET EACH, \$0.75  
8 inch....★ NET EACH, \$0.90

NO. 3 DUFFY FLOOR TRAP

With brass disc, operates by hand only. Diam. 4 in.

★ NET EACH, \$1.50



Fig. No. 2318



CAST TANK VALVE

Douglas Pattern, for Low Down Tanks

Fig. No. 3202

Complete with lock nut, rubber washer and two lift wires. Cast guide with thumb screw. One inch overflow tube made of seamless tubing 11 inches long assembled in the valve. Shank threaded 2 inch iron pipe size. Complete as illustrated, less tank bulb.

★ NET EACH, \$0.68

2½ in. Tank Bulb.

★ Net Extra, \$0.25

Extra Pins. ★ Net Each, 11c  
Guide Holders. ★ Net Each, 15c



SEWER GAS AND BACK WATER TRAP

Fig. 3792

Palmer Improved. Bolted or screwed cover. Ready for use. Complete with valve and setting.

4 inch .....★ NET EACH, \$4.75  
6 inch .....★ NET EACH, \$6.00

PLUMBERS' OAKUM

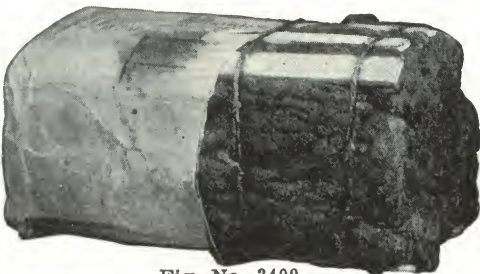


Fig. No. 3409

Spun Oakum. Bale is held in shape by wooden slats which are tied and then wrapped with heavy paper. Easy to handle.

★ Net 50 Pound Bale, \$4.50  
Spun Oakum. 20—5 pound cartons ..... ★ Net Bale, \$9.50  
Spun Oakum. 1 to 19—5 pound cartons .... ★ Net Carton, \$0.60  
Rope Oakum ..... ★ Net 50 Pound Bale, \$5.50



## PORTABLE SHOWER

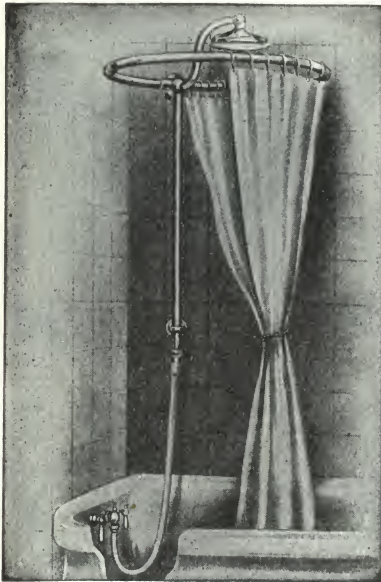


Fig. 3093

Can be quickly attached to any bath cock with nozzle without expense for installation.  $\frac{5}{8}$  inch O. D. brass tubing, heavily nickel plated.  $\frac{3}{8}$  inch corrugated rubber tubing. Special fast-grip bulb—won't blow off. 24 inch N. P. brass curtain ring. 7  $\frac{1}{2}$  inch N. P. brass rain head. 5  $\frac{1}{2}$  ounce white duck curtain. Nickel plated brass curtain pins and screws. Aluminum bulb connection to bath cock. Adjustable brass cast flanges.

★ NET EACH, \$4.25

Extra Curtain Pins ★ Net Each, \$0.03  
Extra Curtains ....★ Net Each, \$1.75



## OFFSET FLUSH PIPES

Fig. 3210

## For High Tanks

Made from 22 gauge brass, polished nickel plated. Double collar. Offset pipes with 3 inch center to back of offset.

O. D.	O. D. Collar	Length	★ NET
In.	In.	Feet	EACH
1-1/4	1-3/8	5-1/2	\$1.65
1-1/4	1-3/8	6	\$1.85

## SLIP JOINT ELBOWS

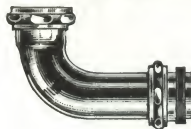


Fig. 4042

## For High Tanks

Brass, Polished nickel plated.

Size, In.	★ NET EACH
1-1/4x1-1/4x4	.....\$0.50
1-1/4x1-1/4x6	.....\$0.60
1-1/4x1-1/4x8	.....\$0.79
1-1/2x1-1/2x4	.....\$0.72
1-1/2x1-1/2x6	.....\$0.83

## BATH SUPPLY PIPES

## Straight

Fig. No. 3206  
 $\frac{1}{2}$  in. O. D., 20  $\frac{1}{2}$  in. long, straight type, made from 14 gauge brass tubing, threaded each end,  $\frac{1}{2}$  in. iron pipe thread. Complete with floor flanges. 2 in set.

★ NET PAIR, \$1.20

## Offset

Fig. No. 3215  
 $\frac{5}{16}$  in. O. D., 21  $\frac{1}{2}$  in. long, made from 16 gauge brass tubing. Complete with floor flanges, top and bottom nuts, rubber cone, friction rings and washers. 2 in set.

★ NET PAIR, \$1.25



Fig. No. 3206



Fig. No. 3215

## BASIN CONNECTION

Brass tubing, nickel plated. Washer and friction ring. 2 in set.

Fig. 3207

With Elbow—  
 $\frac{5}{16}$  O. D., 5 inch long from center of elbow.

★ NET PAIR, \$0.35



Fig. 3216  
Straight— $\frac{7}{16}$  O. D. 5  $\frac{5}{16}$  inch long.  
★ NET PAIR, \$0.30

## CLOSET SPUDS



Fig. 758S

Fig. No.	In.	★ NET EACH
758S	1-1/4	\$0.30
759S	1-1/2	\$0.30
760S	2	\$0.35

## FLUSH ELBOWS AND OFF-SET CONNECTIONS FOR LOW DOWN TANKS

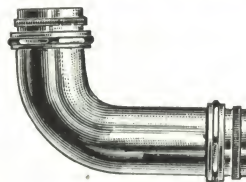


Fig. 3203. Elbow

2x4x6 inch	....★ NET EACH, \$0.85
2x5x7 inch	....★ NET EACH, \$1.25
2x6x8 inch	....★ NET EACH, \$1.50

Made of heavy gauge brass tubing, polished nickel plated. Complete with cast brass hexagon nuts, brass friction rings and rubber washers.



Fig. 3212. Offset

2x1x6 inch	....★ NET EACH, \$0.96
2x2x6 inch	....★ NET EACH, \$1.04



Fig. No. 858

## CAST IRON SINK BRACKETS

Size 1, 10x12  $\frac{1}{2}$  inches.

★ NET PAIR, \$0.60

Size 2, 12x15 inches.

★ NET PAIR, \$0.70

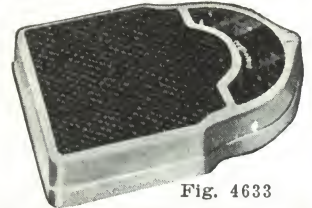
Health-o-Meter  
BATHROOM SCALES

Fig. 4633

One-piece seamless shell. Dial is graduated to 250 pounds. Inlaid rubber mat. Steel pivots. Rubber feet. Size is 10  $\frac{1}{4}$  by 13  $\frac{1}{2}$  inches. Height of platform is 2  $\frac{1}{2}$  inches. Net weight, 5  $\frac{1}{2}$  pounds. Finished in white.

Singly ....★ NET EACH, \$2.45  
4 or More...★ NET EACH, \$2.25



Fig. 4634

Hardened steel bearings and pivots. Accurate. Durable. Space required is 11 by 16 inches. Platform is 8  $\frac{3}{4}$  by 11 inches, and is 2  $\frac{1}{2}$  inches high. 5  $\frac{1}{2}$  inches overall. Net weight, 19 pounds. Finished in white.

Singly ....★ NET EACH, \$7.00  
4 or More...★ NET EACH, \$6.15



Fig. 4239

Sturdy cast iron mechanism is entirely enclosed by a one-piece, seamless shell of rust-resisting steel. Rack, pinion and bearings are hardened tool steel. Large dial is graduated to 250 pounds, (300 pounds when specified). Space required is 11 by 14  $\frac{1}{2}$  by 6 inches. Platform is 7 by 11 inches. Weighs 22 pounds. Finished white.

Singly ....★ NET EACH, \$12.95  
2 or More...★ NET EACH, \$11.00

## NICKELED SINK BOLTS



Fig. No. 1686

Nickel plated brass, with nut. 100 in box.

1/4x1 inch .....★ NET 100, \$3.75  
1/4x2-1/4 inch ...★ NET 100, \$4.50



## LAVATORY FAUCETS

Compression type, high grade, popular lavatory faucets. With oval spouts. Be sure to state whether the index handles are wanted for 'HOT' or for 'COLD' water. Couplings are furnished 1/4 inch I. P. T. and are suitable for lead or iron pipe.

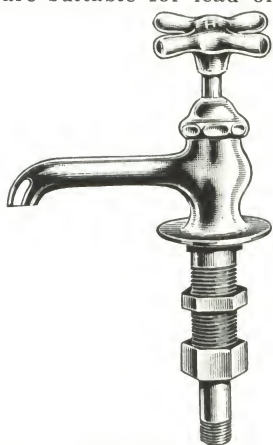


Fig. 4762

	★ NET EACH	★ NET DOZEN
Plating		
Nickel	\$1.40	\$14.04
Chromium		

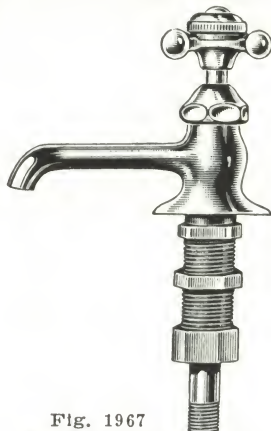


Fig. 1967  
With Porcelain Index Caps

	★ NET EACH	★ NET DOZEN
Plating		
Nickel	\$1.35	\$13.39
Chromium	\$1.40	\$14.04

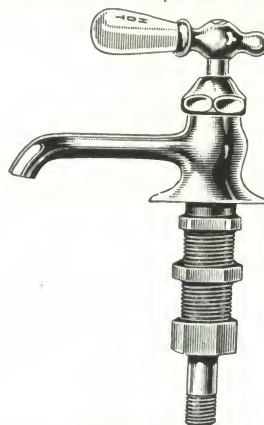


Fig. 4098  
Porcelain Index Lever Handle

	★ NET EACH	★ NET DOZEN
Plating		
Nickel	\$1.35	\$13.39
Chromium	\$1.40	\$14.04

## LAVATORY FAUCET

with  
porcelain  
handles



Fig. 3073

porcelain interchangeable index handle. Couplings furnished 1/4 inch I. P. suitable for lead or iron pipe. Be sure to state whether wanted for hot or cold water.

	EACH	DOZEN
Nickel	\$1.38	\$13.72
Chromium	\$1.45	\$14.37

## FULLER BASIN FAUCETS

Complete with Tail Piece



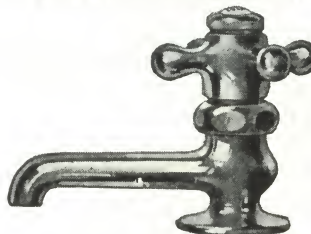
Fig. 3318

Small heavy pattern with union and China Index Handle, "Non-Rattle" stem and ball. Three inches high, and from center of basin faucet to end of spout, 3 3/8 inches.

	★ NET EACH	★ NET DOZEN
Nickel	\$3.15	\$31.52
Chromium	\$3.60	\$36.23

## HEAVY SELF-CLOSING BASIN FAUCETS

FOR HARD SERVICE IN HOTELS, PUBLIC PLACES, ETC.



Heavy construction. Chromium plated bronze RENEWABLE SEAT. China indexed metal handle. 1/4 inch M.I.P. tailpiece. Double ball race distributes wear over greater bearing surface giving long life and smooth, easy action. Slotted adjusting nut takes up wear on washer. Phosphor bronze spring.

	Fig. 4445 Ball-Bearings	Fig. 4445-L Four Ball Lever Handle (Not shown)
	NICKEL PLATED	
With	\$2.85	\$2.85
Without	\$2.30	\$2.30
	CHROMIUM PLATED	
With	\$3.15	\$3.15
Without	\$2.55	\$2.55

## BATH FAUCETS

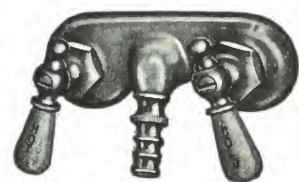


Fig. 3366

### QUICK COMPRESSION

Standard connections. China valves, indexed hot and cold. Opens at and left. Less couplings.

Nickel ★ NET EACH, \$2.28

Chromium plated. With all metal index handles instead of China index handles. Less couplings.

★ NET EACH, \$2.39

Couplings .... ★ NET EXTRA, \$0.52

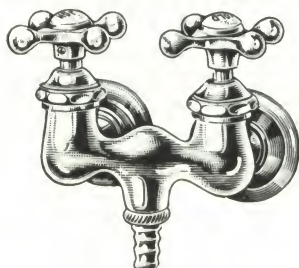


Fig. 5166

### QUICK COMPRESSION

Four ball china index top handles. HOT or COLD. With locknuts and hose connections. 3-3/8 inch centers.

	★ NET EACH
Plating	
Nickel	\$3.04
Chromium	\$3.40

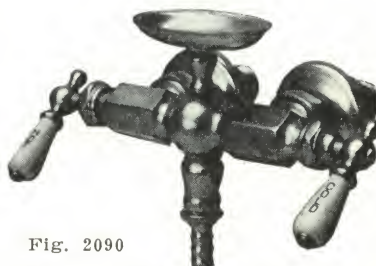


Fig. 2090

A well finished, nickel plated bath cock of good weight. Standard connections. Without couplings or tailpieces.

### ★ NET EACH

	Without Jewel Cup	With Jewel Cup
Plating		
Nickel	\$3.17	\$3.49
Chromium	\$3.64	\$3.92



## BRASS FAUCETS (Fuller Bibbs)

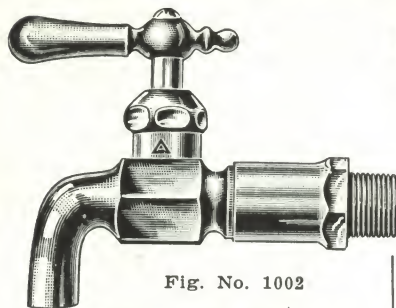


Fig. No. 1002

Iron Pipe, with Shoulder

Size Inches	★ NET DOZEN		
	Brass	Nickel Plated	Chromium Plated
WITH MALE TAIL PIECE			
1/2	\$10.89	\$11.57	\$12.73
5/8	\$12.47	\$13.16	\$14.47
WITHOUT TAIL PIECE			
1/2	\$8.42	\$9.18	\$10.10
5/8	\$9.97	\$10.89	\$11.99

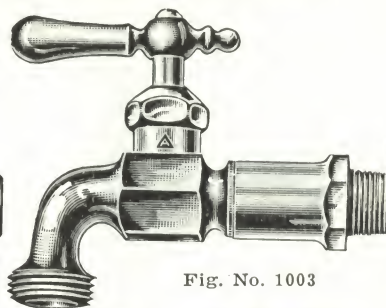


Fig. No. 1003

Iron Pipe, with Shoulder,  
for Hose

Size Inches	★ NET DOZEN		
	Brass	Nickel Plated	Chromium Plated
WITH MALE TAIL PIECE			
1/2	\$12.48	\$13.16	\$14.47
5/8	\$14.18	\$15.43	\$16.97
WITHOUT TAIL PIECE			
1/2	\$9.97	\$10.89	\$11.99
5/8	\$11.68	\$12.47	\$13.72

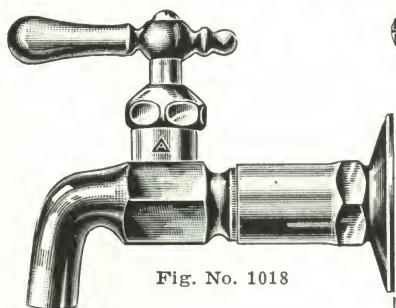


Fig. No. 1018

Solid Flange  
Female Thread

Size Inches	★ NET DOZEN		
	Brass	Nickel Plated	Chromium Plated
WITH FEMALE TAIL PIECE			
1/2	\$10.93	\$12.02	\$13.23
5/8	\$13.27	\$14.10	\$15.50

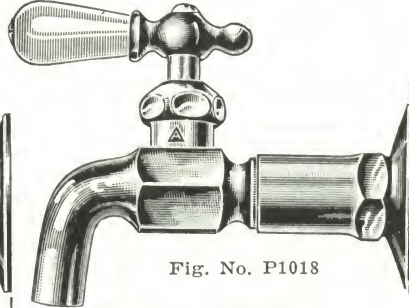


Fig. No. P1018

Porcelain Handle  
Solid Flange, Female Thread

Size Ins.	★ NET DOZEN			
	Cold Water N. Pl.	Hot Water Chr. Pl.	Cold Water N. Pl.	Hot Water Chr. Pl.
WITH FEMALE TAIL PIECE				
1/2	\$12.02	\$13.23	\$12.02	\$13.23
5/8	\$14.09	\$15.50	\$14.09	\$15.50
WITHOUT TAIL PIECE				
1/2	\$9.68	\$10.75	\$9.68	\$10.75
5/8	\$11.84	\$13.10	\$11.84	\$13.10

## COMPRESSION FAUCETS

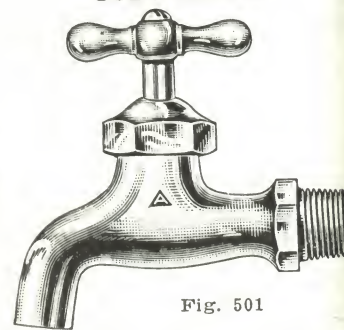


Fig. 501

Iron Pipe, with Shoulder

Size Inches	★ NET EACH		
	Brass	Nickel Plated	Chromium Plated
1/2	\$0.58	\$0.66	\$0.72
3/4	\$0.66	\$0.73	\$0.80
1	\$1.78	\$1.94	\$2.13

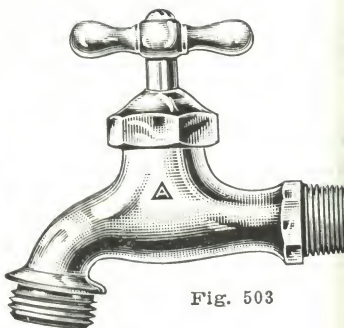


Fig. 503

Iron Pipe, with Shoulder,  
for Hose

Size Inches	★ NET EACH		
	Brass	Nickel Plated	Chromium Plated
1/2	\$0.63	\$0.70	\$0.78
3/4	\$0.72	\$0.79	\$0.87
1	\$1.98	\$2.13	\$2.34

## QUICK OPENING FAUCETS—CHINA INDEX HANDLES

Nickel plated brass, China index handles. Handles marked "Hot" or "Cold": Specify which is wanted.

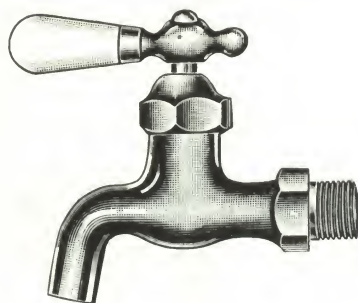


Fig. No. 2951

Male, Iron Pipe with Shoulder

Size Inches	★ NET EACH		
	I.P.T. Inches	Nickel Plated	Chromium Plated
1/2	1/2	\$0.85	\$0.94
5/8	3/4	\$0.94	\$1.04

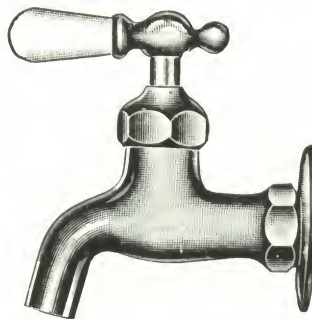


Fig. No. 2960

Solid Flange, Female, Iron  
Pipe

Size Inches	I.P.T. Inches	Nickel Plated	Chromium Plated
1/2	1/2	\$1.10	\$1.22
5/8	3/4	\$1.19	\$1.31

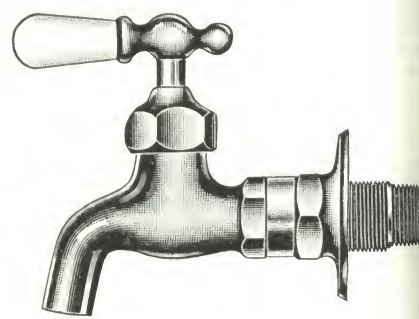


Fig. No. 2990

Male, Iron Pipe, Adjustable  
Screw Flange

Size Inches	I.P.T. Inches	Nickel Plated	Chromium Plated
1/2	1/2	\$1.22	\$1.34
5/8	3/4	\$1.41	\$1.53







## DOUBLE SINK FAUCETS

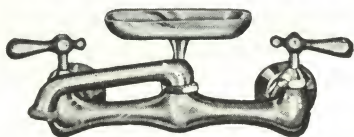


Fig. 4287

Chromium plated. Metal soap dish. Metal indexed handles. Female eccentric or male adjustable couplings. With adjustment to line up fixture straight with sink. Renewable seat.

**★ NET EACH  
\$4.25**

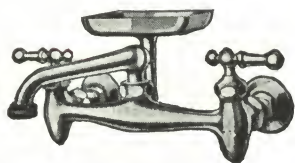
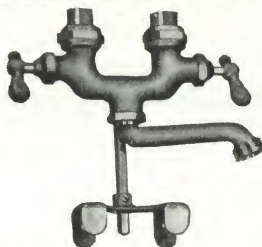


Fig. 4288

Chromium plated. With metal soap tray and metal lever handles, stamped H and C. Solid flange. Female iron pipe. With safety strainer.

**★ NET EACH  
\$5.45**

## LAUNDRY TRAY FAUCETS



Rough brass. Nickel plated. Easily installed. Adjustable bracket for attaching to tub with 2 inch adjustment permitting hose to be moved over partition of trays. 1/2 inch iron pipe ground joint unions.

Fig. No.	For Trays	Swinging Spout	★ NET EACH
3062S	Two	Single	\$1.95
3062D*	Three	Double	\$3.75

\* Bracket is not adjustable.

## WASH TRAY FAUCETS

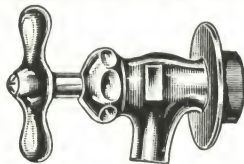


Fig. 16.

1/2 inch stub pattern.

Plain ..... ★ NET EACH, \$0.40

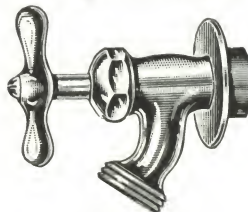


Fig. 2162

For hose... ★ NET EACH, \$0.45

## SILL COCKS

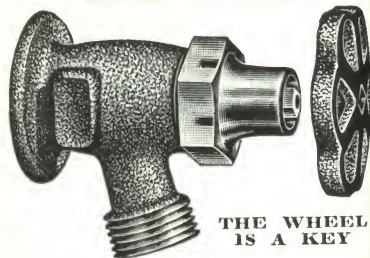


Fig. 269

High grade. Guaranteed. With removable wheel handle. Cast brass, nickel plated. Screw may be removed and wheel used as a key. Made with 3/4 inch male hose thread outlet, 1/2 or 3/4 inch inlet. Specify size wanted.

Fig. 269 1/2 — 1/2 inch inlet.  
Fig. 269 3/4 — 3/4 inch inlet.

**★ NET EACH \$0.70**  
Sill Cock Keys. ★ NET DOZEN, \$1.32

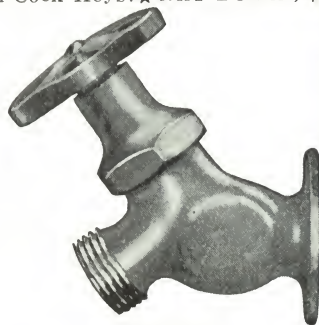


Fig. 4289

Improved style, prevents excessive kinking of the hose because the hose fastens at a convenient angle instead of downward. 1/2 or 3/4 inch inlet. 3/4 inch thread outlet, 3/8 inch full waterway. Wheel handle or loose key.

Fig. 4289 1/2 — 1/2 inch inlet.  
Fig. 4289 3/4 — 3/4 inch inlet.

**★ NET EACH \$0.70**

## SKINNER BIBB DRESSER AND RESEATERS



Fig. 4290

Bibb Seat Dresser. Recuts worn, leaky seats of all standard compression faucets, in a few moments, leaving them glass-smooth, accurate and tight. Ground steel cutters. Fine threaded steel cone. Cadmium plated handle and spindle which resists rust.

**★ NET EACH, \$1.20**

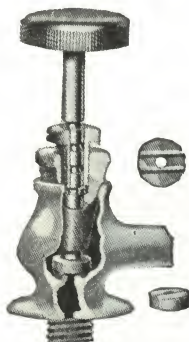


Fig. 2230

Bibb Reseater. For common compression bibbs. Screw feed. Four parallel bladed cutters, Swedish steel, guaranteed to stay sharp, for taking 3/8, 1/2, 5/8 and 3/4 inch bibbs. Tapered chuck has hardened, fine steel threads which readily engage and hold in any surface. Easily centered. Cadmium plated handle to prevent rust.

**★ NET EACH, \$2.00**

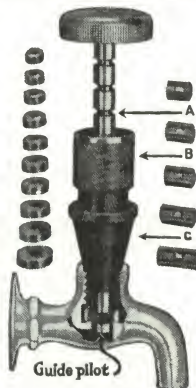


Fig. 4291

Self-Aligning Bibb Reseater. Reseats all makes of flat seat bibbs 1/4 to 3/4 inch, in place. Always perfectly aligned. Guide pilot holds cutter to an absolute center while the taper chuck is screwed in. Fine hardened threads on tapered chuck engage any surface and hold with a wedge grip. 5 Swedish steel cutters, guaranteed to stay sharp. 12 pilots. Cutter is held down to seat by a feed screw. Smooth, level, accurate job.

**★ NET EACH, \$4.50**

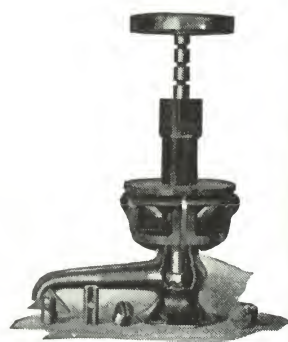


Fig. 4292

Utility Bibb Reseater. Complete. For reseating all flat taper and oval seat bibbs and cocks 1/2 to 1 inch, and all small valves from 1/2 to 3/4 inch—in place. Easy to use, quick in operation, absolutely accurate. Glass smooth job. Four-dog chuck fits over body of fixture giving spindle solid positive centering. Feed screw holds cutter down to its work. 5 adjustments for all heights of bibbs. 3 inch extension for deep fixtures. 16 Swedish steel cutters, guaranteed for life. Hardwood case.

**★ NET EACH, \$20.00**



## LOCK LEVER BRASS GASOLINE FAUCETS

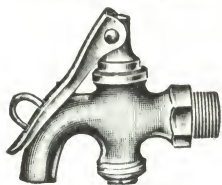


Fig. No. 2060

A brass faucet or bibb with a ground joint and spring washer. The handle is of steel and hinged so as to fold over a ring on the nose of the bibb. A padlock can be inserted in this way and gasoline protected against theft.

### Plain

#### ★ NET PRICES EACH

Size, inch	Rough Brass
1/2	★ NET EACH \$0.64
3/4	★ NET EACH \$0.72
1	★ NET EACH \$0.79
1 1/4	★ NET EACH \$1.26
1 1/2	★ NET EACH \$2.50
2	★ NET EACH \$3.40

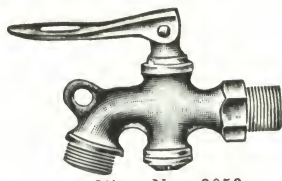


Fig. No. 2059

### For Hose

#### ★ NET PRICES EACH

Size, inch	Rough Brass	Polished Nckl. Pltd.
1/2	★ NET EACH \$0.86	\$1.50
5/8	★ NET EACH \$0.98	\$2.10
3/4	★ NET EACH \$1.19	\$3.00
1	★ NET EACH \$1.50	\$4.20
1 1/4	★ NET EACH \$3.89	\$6.60
1 1/2	★ NET EACH \$4.34	\$8.40

## LOCK LEVER COCK Threaded for Wood

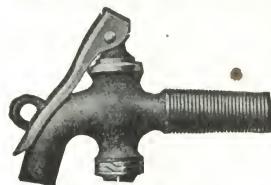


Fig. No. 3337

Threaded for wood. Full capacity. Bodies and plugs are brass. Carefully machined. Each one tested under pressure. When closed Lock Lever is in position over loop so it cannot be accidentally opened. A padlock may be used if desired.

### ★ NET PRICES EACH

1/2 inch	★ NET EACH, \$0.65
5/8 inch	★ NET EACH, \$0.90
1 inch	★ NET EACH, \$1.25

## "PERFECTION" OIL AND MOLASSES GATES

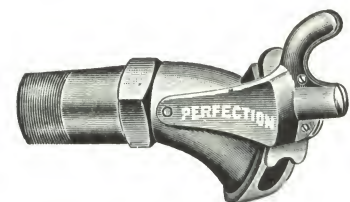


Fig. No. 1329

Scoville's pattern, all iron, japanned. Warranted perfect and absolutely tight. Iron pipe thread has straight shank. 1/2 dozen in a box.

### LIST PRICES PER DOZEN

Size, inches	Iron Pipe Thread List per Doz.
1/2	\$17.00
3/4	17.60
1	20.35
1 1/4	24.20
1 1/2	33.00
2	72.00
3	72.00

DISCOUNT ..... 50% OFF

## SELF-CLOSING FILL FAUCET

### For Auto Radiators

3/4 inch female hose threads. Rough brass, nickel plated. A necessity for every garage and filling station. Flow of water stops immediately when handle is released, positively no leakage. Has special loop for hanging when not in use.  
★ NET EACH, \$1.14  
Lots of 6 or more..★ NET EACH, \$1.08

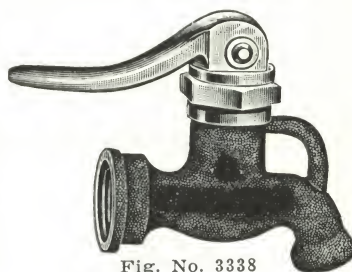


Fig. No. 3338

## GASOLINE DRUM FAUCET

### Self Closing—No Leak—Lock Lever



Fig. 3204

A positive no-leak faucet for gasoline, kerosene, alcohol and all oils. Solid brass castings. Composition seat, no packing required. Full flow, self closing. 3/4 inch size, iron pipe thread.

★ NET DOZEN	.....\$9.00
★ NET EACH	.....\$0.90

## PETROLEUM FAUCETS

Made from iron, japanned finish. Lever handle, brass key.

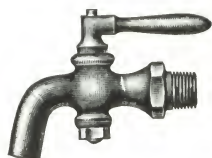


Fig. No. 3205

### Iron Pipe Thread

No.	Size, In.	Wt. Lbs. Per Doz.	List Per Doz.
157	5/8	10 1/2	\$14.00
167	3/4	13 1/2	17.00
177	1	23	24.00

DISCOUNT ..... 20-10% OFF

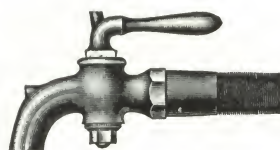


Fig. No. 3214

### Screw Shank for Wood

No.	Size, In.	Wt. Lbs. Per Doz.	List Per Doz.
5	5/8	10 1/2	\$13.00
6	3/4	17	16.00
7	1	23	23.00

DISCOUNT ..... 20-10% OFF

## BOILER SEDIMENT FAUCETS

### (DRAIN COCKS)

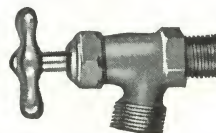


Fig. No. 2175

### 1/2 Inch

1/2 inch. For draining off water from heating systems.

★ NET EACH .....\$0.38

3/4 inch.....★ NET EACH, \$0.47



**BRASS STOPS (OR STOP COCKS)**

Made of high grade brass, rough body with perfect ground keys.  
Tee or lever handle.

**Plain Stop—For Iron Pipe**

Fig. No. 1597,  
Tee Handle



Fig. No. 1599,  
Lever Handle

**LIST PRICES DOZEN**

Size	List Dozen	Size	List Dozen
1/2 inch	\$21.00	1 1/4 inch	\$ 89.40
5/8 inch	29.40	1 1/2 inch	149.40
3/4 inch	36.00	2 inch	258.00
1 inch	52.80		

DISCOUNT ..... 60% OFF

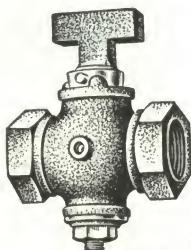
**Stop and Drain (or Waste)—For Iron Pipe**

Fig. No. 1597,  
Tee Handle

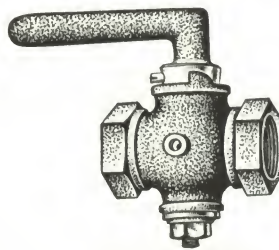


Fig. No. 1600,  
Lever Handle

**LIST PRICES DOZEN**

Size	List Dozen	Size	List Dozen
1/2 inch	\$21.60	1 1/4 inch	\$ 91.20
5/8 inch	30.00	1 1/2 inch	152.40
3/4 inch	36.60	2 inch	264.00
1 inch	54.00		

DISCOUNT ..... 60% OFF

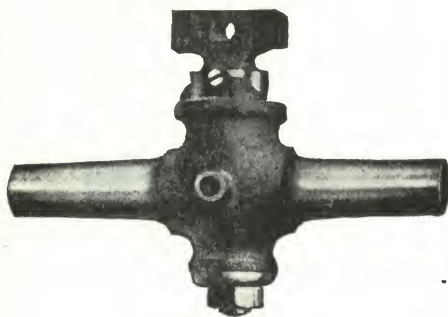
**STRAIGHT WAY STOP AND DRAIN  
For Lead Pipe**

Fig. 3911

Solid tee handle. For lead pipe.  
Rough. With drain.

**LIST EACH**

Size, Inches	1/2	5/8
List Each	\$2.00	\$2.80
DISCOUNT	60% OFF	

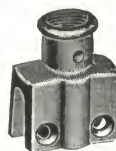
**MALLEABLE IRON  
HYDRANT CLAMPS**

Fig. No. 1607

Size Opening Inches	Slot Width Inches	LIST EACH
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**Square Hole, Black**

3/8	7/16	\$0.06
1/2	1/2	\$0.08
1/2	1/2	\$0.10

**Pipe Tap, Black**

3/8	1/2	\$0.09
1/2	1/2	\$0.13

**Pipe Tap, Galvanized**

3/8	1/2	\$0.12
1/2	1/2	\$0.17

DISCOUNT .. 37% OFF

**BRONZE COMPRESSION  
STOP AND DRAIN (OR  
WASTE)  
With Stuffing Box**

Fig. No. 2324

High grade red brass (bronze), rough. Large seat and waterway, extra heavy threads. For use where stop is practically always under pressure.

1/2 inch	★ NET EACH, \$0.44
3/4 inch	★ NET EACH, \$0.49
1 inch	★ NET EACH, \$1.10

**HYDRANT STOP AND DRAINS**

Fig. 3912

Straight way. Extra grade. Iron pipe. Solid brass tee handle.

**LIST EACH**

Size, Inches	List Each
1/2	\$ 2.15
5/8	3.05
3/4	3.75
1	5.40
1 1/4	8.65
1 1/2	14.20
2	24.00
DISCOUNT	50% OFF

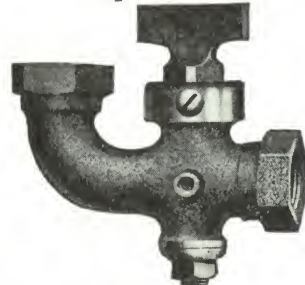
**HYDRANT STOP AND DRAINS  
Cap Pattern**

Fig. 3913

Straight way. Extra grade. Iron pipe. Cap pattern. Tee handle.

**LIST EACH**

Size, Inches	List Each
1/2	\$ 2.15
5/8	3.05
3/4	3.75
1	5.40
1 1/4	8.65
1 1/2	14.20
2	24.00
DISCOUNT	40% OFF



INVERTED KEY ROUND  
WAY CURB STOPS

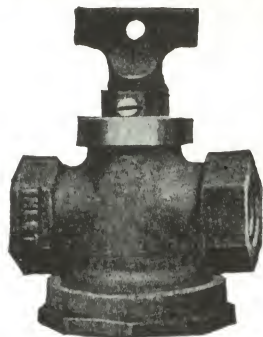


Fig. 3914

Tee handle. Extra grade. Iron pipe. Without drain

Size, Inches	List Each
1/2	\$ 2.95
5/8	3.80
3/4	4.90
1	7.40
1 1/4	12.20
1 1/2	19.70
2	33.50

DISCOUNT

1/2 to 1 Inch	50% OFF
1-1/4 to 2 Inch	55% OFF

TEE HANDLE ROUND WAY  
CURB STOP

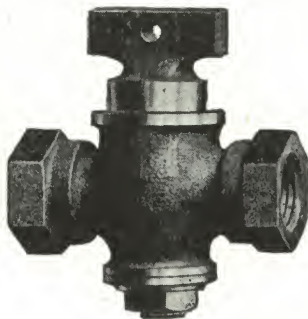


Fig. 3915

Solid tee handle. Extra grade. Iron pipe. Without drain.

Size, Inches	List Each
1/2	\$ 2.20
5/8	3.00
3/4	3.85
1	6.15
1 1/4	10.05
1 1/2	16.45
2	28.50

DISCOUNT

1/2 to 1 Inch	60% OFF
1-1/4 to 2 Inch	65% OFF

INVERTED KEY ROUND  
WAY CURB STOPS

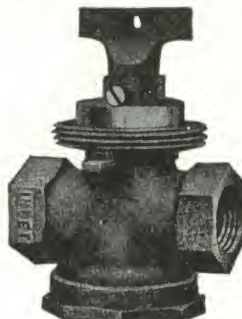


Fig. 3916

Minneapolis pattern. Extra grade. Iron pipe. Without drain.

Size, Inches	List Each
1/2	\$ 3.35
5/8	4.25
3/4	5.40
1	8.05
1 1/4	13.05
1 1/2	20.95
2	35.50

DISCOUNT

1/2 to 1 Inch	50% OFF
1-1/4 to 2 Inch	60% OFF

PLAIN GROUND KEY  
FAUCETS

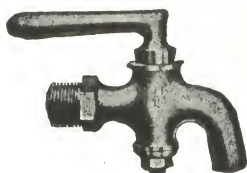


Fig. 3917

Plain faucet. Lever handle. Iron pipe. Ground key.

LIST EACH

Size, Inches	Rough Finish	Finished List Each
1/2	\$1.75	\$2.15
5/8	2.45	2.95
1	4.40	5.40

DISCOUNT ..... 50% OFF

HOSE GROUND KEY  
FAUCETS

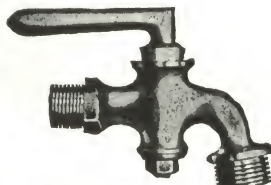


Fig. 3918

Hose faucet. Lever handle. Iron pipe. Ground key.

LIST EACH

Size, Inches	Rough Finish	Finished List Each
1/2	\$2.00	\$2.40
5/8	2.70	3.20
1	5.00	6.00

DISCOUNT ..... 50% OFF

LEAD FLANGE UNION  
COUPLINGS



Fig. 3919

For lead to iron pipe.

LIST EACH

Size, Inches	LIST EACH
1/2	\$0.85
5/8	\$1.30

DISCOUNT ..... 55% OFF

BRASS SOLDERING NIPPLES



Fig. 3920

Standard Male



Fig. 3921

Standard Female

LIST EACH

Size, Inches	3/8	1/2	3/4	1	1 1/4
List Each	\$0.30	\$0.35	\$0.50	\$0.70	\$0.90
Size, Inches	1 1/2	2	2 1/2	3	4
List Each	\$1.25	\$1.75	\$3.00	\$4.00	\$7.00

DISCOUNT { Up to 2 Inch ..... 60% OFF  
2 1/2 Inch and Larger ..... 50% OFF

BRASS  
SOLDERING UNIONS

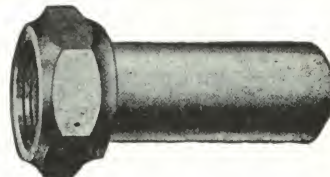


Fig. 3922

LIST EACH

Size, Inches	List Each	Size, Inches	List Each
1/2	\$0.50	1 1/4	\$1.10
3/4	.65	1 1/2	1.25
1	.85	2	1.75

DISCOUNT ..... 60% OFF



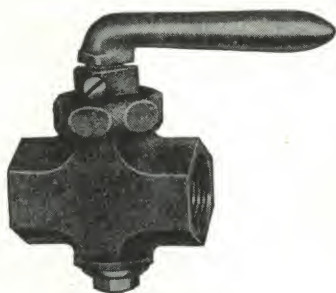
**HEXO STRAIGHT WAY STOPS****Cap Pattern**

Fig. 5254

Lever handle. Cap pattern. Built heavy and rugged to withstand rough usage. The hexagonal design gives plenty of room for the wrench grip. The 3/4 inch meets the requirements for a 5/8 or 3/4 inch stop. For iron pipe.

**LIST EACH**

Size, Inches	1/2	5/8 x 3/4	1
LIST EACH	\$1.75	\$2.45	\$4.40
DISCOUNT	45% OFF		

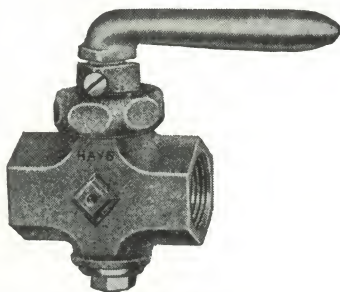
**HEXO STRAIGHT WAY STOP AND DRAINS****Cap Pattern**

Fig. 5255

Lever handle. Cap pattern. Built heavy and rugged to withstand rough usage. The hexagonal design gives plenty of room for the wrench grip. The 3/4 inch meets the requirements for a 5/8 or 3/4 inch stop. With drain. For iron pipe.

**LIST EACH**

Size, Inches	1/2	5/8 x 3/4	1
LIST EACH	\$1.80	\$2.50	\$4.50
DISCOUNT	45% OFF		

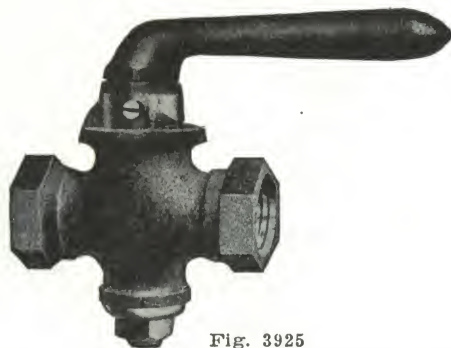
**STRAIGHT WAY STOPS****Socket Head**

Fig. 3925

Lever handle. Rough. Socket head. Iron pipe. Without drain.

**LIST EACH**

Size, Inches	1/2	5/8	3/4	1
List Each	\$1.75	\$2.45	\$3.00	\$4.40

Size, Inches	1 1/4	1 1/2	2
List Each	\$7.45	\$12.45	\$21.50
DISCOUNT	55% OFF		

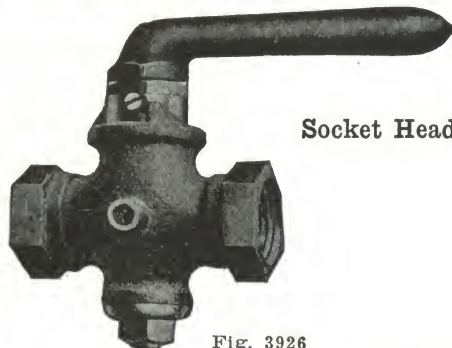
**STRAIGHT WAY STOP AND DRAIN****Socket Head**

Fig. 3926

Lever handle. Rough. Socket head. Iron pipe. With drain.

**LIST EACH**

Size, Inches	1/2	5/8	3/4	1
List Each	\$1.80	\$2.50	\$3.05	\$4.50

Size, Inches	1 1/4	1 1/2	2
List Each	\$7.60	\$12.70	\$22.00
DISCOUNT	55% OFF		

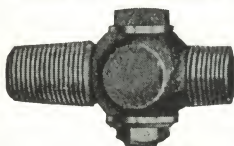
**CORPORATION STOPS**  
With or Without Couplings

Fig. 3927

Standard pattern. Male. Combination inlet water works standard (formerly M.C.C. thread), outlet increased iron pipe threading. For Payne's Nos. 1 1/2 and 2 1/2, New Eclipse, also Mueller machines.

**LIST EACH**

Size Inches	1/2	3/4	1
Without Couplings	\$1.45	\$1.95	\$2.50
With Couplings	1.60	2.25	2.85

DISCOUNT	55% OFF		
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Size Inches	1 1/4	1 1/2	2
Without Couplings	\$9.25	\$15.00	\$25.00
With Couplings	10.00	16.00	26.50

DISCOUNT	60% OFF		
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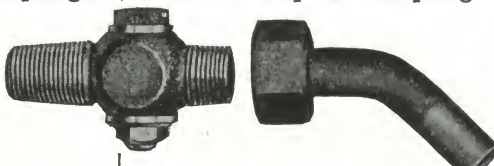
**CORPORATION STOPS**  
With Tailpiece Coupling

Fig. 3928 (with 1/4 Bend Coupling) Standard pattern. Inlet and outlet ends water works standard. (Formerly M.C.C. Thread.) For Payne's Nos. 1 1/2 and 2 1/2 New Eclipse and Mueller Machine, Screw Plug.

**LIST EACH**

Size Inches	1/2	3/4	1
Straight Coupling	\$1.60	\$2.25	\$2.85
1/4 Bend Coupling	1.60	2.25	2.85

DISCOUNT	45-5% OFF		
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Size Inches	1 1/4	1 1/2	2
Straight Coupling	\$10.00	\$16.00	\$26.50
1/4 Bend Coupling	10.00	16.00	26.50

DISCOUNT	55% OFF		
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**HAND WIPED JOINT**  
LEAD GOOSE NECK

Fig. 3929

With male nipple unless otherwise specified.

**LIST EACH**

Size Inches	Length Lead Pipe	With Corp. Stop	Less Corp. Stop
1/2	18	\$5.50	\$4.60
5/8	18	6.25	5.40
3/4	18	7.25	6.25
1	18	10.75	9.20
1 1/4	24	19.50	16.20
1 1/2	30	31.00	25.50
2	36	48.50	38.50

**DISCOUNT**

With Corp. Stop	45-5% OFF
Less Corp. Stop	55-5% OFF



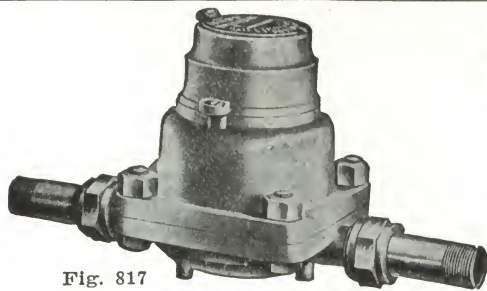


Fig. 817

## LIST PRICES EACH

Size of Meter, Inches	Capcy., U. S. gals. per Min.	Wt., Lbs.	List Each	Brass Couplings, List Extra per Pair
5/8 x 1/2	20	15	\$16.00	\$1.00
5/8 x 3/4	20	15	16.00	1.50
3/4	34	20	24.00	1.50
1	53	30	35.20	2.20
1 1/4	75	60	48.00	3.00
1 1/2	100	90	64.00	4.00
2	160	145	96.00	6.00

DISCOUNT ..... 40% OFF

## NIAGARA WATER METERS

From 5/8 Inch to 2 Inch Sizes

The "Niagara" Meter has the outer casing made of a fine grade of cast iron, galvanized. Should a meter freeze, one-half of the outer case usually breaks, thus relieving the inner and more expensive parts from injurious strain. A new half of outer case can be furnished at small cost. The 5/8 inch size fitted for 1/2 inch or for 3/4 inch couplings has square flange cases held together with four heavy bolts. The regular 3/4 inch and larger sizes are of the round flange pattern.

The working parts are removable from the outer cases, and are substantial and carefully made on the interchangeable plan from bronze composition, hard brass, hard rubber and German silver. They are protected by an internal removable strainer. The measuring chambers are of large capacity and are fitted with extra thick, strong, hard rubber discs. These meters contain a minimum number of parts, and are wonderfully simple and accessible for inspection and repair.

The 5/8 inch meter has ample capacity for over 90 per cent of the consumers of most water works, and is furnished fitted for either 1/2 inch couplings or for 3/4 inch couplings. 1/2 inch iron pipe is nearly 5/8 inch inside diameter.

Cold water instruments not guaranteed for hot water use. Cold water meters furnished unless otherwise specified.

Prices on Hot Water Meters or Oil Meters furnished upon application.

BUFFALO PATTERN SERVICE OR STOP BOXES  
For Water or Gas

Regular Screw Type—in use for the past forty years. Made from patterns of a much improved design over those ordinarily purchased. Shaft 2 1/2 inches, suitable for use on curb or service cocks 2 inches and smaller. All parts are interchangeable.

No. 88—Height, 12 inches..★ NET EACH, \$1.10

Lots of 6 .....★ NET EACH, \$0.75

No.	Inches Extension	Approx. Wt., Lbs.	★ NET EACH	
			Singly	Lots of 6
89A	15 to 21	14 1/4	\$1.40	\$1.10
90B	18 to 27	16 1/4	1.45	1.25
91C	24 to 33	17 3/4	1.65	1.35
92C	30 to 39	21 1/4	1.80	1.45
92D	30 to 42	23 1/4	2.00	1.60
93D	36 to 48	28 1/4	2.10	1.70
93E	36 to 54	32 1/4	2.20	1.75
94D	39 to 57	32 3/4	2.30	1.80
94E	42 to 60	33 3/4	2.40	1.85
95E	48 to 66	36 1/4	2.65	1.95
100E	54 to 72	37 3/4	2.85	2.25
100F	54 to 78	39 3/4	3.00	2.35
95G	48 to 84	41	3.15	2.50



Fig. No. 913

## MUELLER WATER TAPPING MACHINE

No. "B." For Tapping Water Mains and Inserting Corporation Cocks Under Pressure.

Information and prices will be furnished upon application.

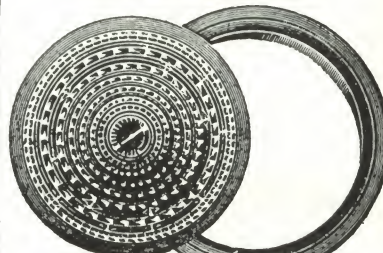
CAST IRON CISTERN  
RING AND COVER

Fig. 920

Set No. 4. Standard 20 inch cover, 26 inch ring. Total weight, 68 pounds.

★ NET SET (2 PIECES), \$6.40

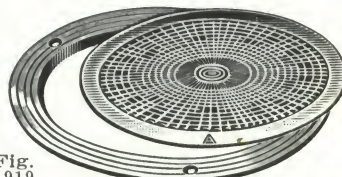
CAST IRON CATCH BASIN  
RING AND COVER

Fig. 919

Set No.	Cover, In.	Ring, In.	Wt., Lbs.	★ Net Set 2 Pieces
1	16	21	45	\$3.40
2	18	24	55	\$4.10
3	22	30	140	\$9.15
4	20	26	64	\$5.25

## SEWER MANHOLE CURB

No. 1  
Fig. No. 921  
Chicago  
Standard Suburb'n

Diameter of opening ..... 23 1/4 in. 22 1/4 in.  
Height above flange 8 in. 7 1/2 in.  
Projection of flange 5 1/4 in. 5 in.  
Diameter of flange 37 in. 34 1/2 in.  
Wt., approximate. 345 lbs. 215 lbs.  
★ Net Each.....\$15.00 \$11.25

## SOLID COVER

No. 3  
Fig. No. 922

Diameter ..... 22 3/4 inches  
Weight, approximate ..... 122 pounds  
Chgo. Std. ....★ Net Each, \$5.80  
Suburban .....★ Net Each, 5.50

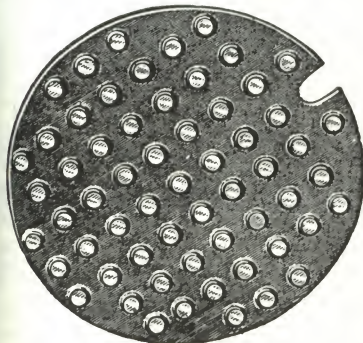


Fig. No. 922, Cover

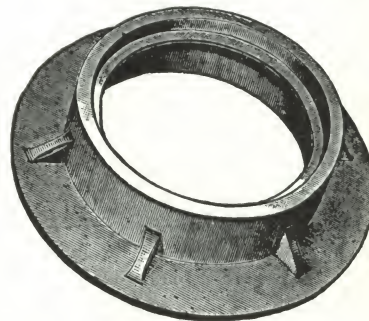
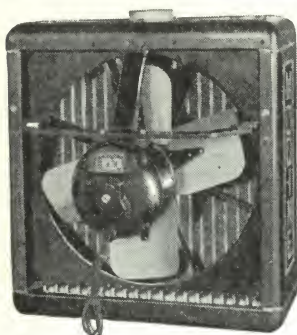


Fig. No. 921, Curb





## MODINE UNIT HEATERS

### SAVE 14% to 25% IN FUEL COSTS

Fig. 4766

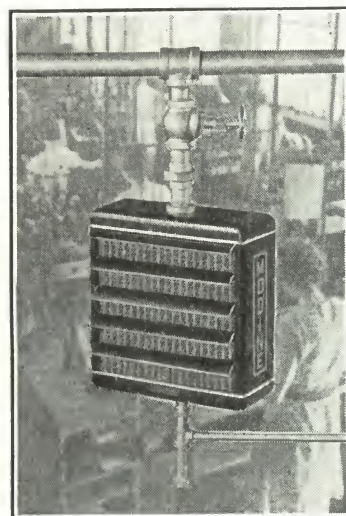
The Modine Unit Heater is a combination of radiator, motor and fan in a single unit attached to a steam (or hot water) line for heating, ventilating, or process drying. The fan forces the air through the heating element resulting in a high rate of heat transfer to the air.

Suspended directly from the steam lines above, Modine units waste no valuable floor or wall space. These units may be used on any steam pressure up to 150 pounds or on a hot water heating system.

Factory after factory is replacing old fashioned pipe coils and direct radiation with Modine Unit Heaters. Replacement is often made before the old system is worn out because unit heaters save up to 25% in fuel cost.

If you are unable to select the correct size unit from the tables below, give us the complete information on your problem, and we will be glad to quote. For ordinary heating purposes it is necessary that we know the dimensions of the room as well as the areas and building construction of all exposed walls, doors, windows and roof; also the steam pressure available.

Model	*** B.T.U.	Equiv. Direct Radiation	Cubic Feet Air Min.	Motor Power H.P.	Motor R.P.M.	Supply Tap- ping Inches	Return Tap- ping Inches	Net Weight Lbs.	Height Inches	Width Inches	Constant Speed LIST EACH
<b>STEAM TYPE UNIT HEATERS</b>											
<b>*** B.T.U. 2 Pounds 60 Degrees Fahrenheit</b>											
76	18,240	76	187	6W.	1550	1	1	25	10-1/2	9-3/4	\$38.80
126	30,300	126	456	1/40	1590	1	3-4	45	16	13	\$58.50
152	36,500	152	540	1/40	1590	1-1/4	3-4	57	18	15	\$66.50
181	43,500	181	770	1/20	1140	1-1/4	3-4	64	18	15	\$73.40
204	49,000	204	735	1/20	1140	1-1/4	3-4	69	18	15	\$77.50
238	57,200	238	731	1/20	1140	1-1/4	3-4	78	18	15	\$82.50
275	66,000	275	1052	1/10	1140	1-1/2	3-4	81	19-1/2	18	\$86.30
352	84,700	352	1425	1/10	1140	2	1	88	22-1/2	18	\$92.80
440	105,600	440	1320	1/10	1140	2	1	99	22-1/2	18	\$99.40
542	130,000	542	1710	1/8	1125	2	1	114	23	22	\$108.40
620	148,800	620	2140	1/6	1120	2	1	121	26-1/2	22	\$117.10
710	170,300	710	2230	1/6	1120	2	1	123	26-1/2	22	\$130.30
903	216,600	903	3000	1/4	1125	2-1/2	1	172	27-7/8	26	\$165.60
1163	279,100	1163	4050	1/2	1110	2-1/2	1	200	30-3/8	26	\$213.40
1545	370,800	1545	5400	1/4 (2)	1125	3	1-1/2	383	30-1/8	50-3/4	\$283.50
2015	483,500	2015	6540	1/2 (2)	1110	3	1-1/2	448	30-5/8	54-13/16	\$369.70



<b>HOT WATER TYPE UNIT HEATERS</b>											
<b>** B.T.U. 170 Degrees Average Water 60 Degrees Fahrenheit Entering Air</b>											
73W	11,000	73	194	6W.	1550	1	1	25	10-1/2	9-3/4	\$38.80
212W	31,800	212	515	1/40	1590	1-1/4	1-1/4	67	18	15	\$66.50
279W	41,900	279	700	1/20	1140	1-1/4	1-1/4	91	18	15	\$82.50
399W	59,900	399	992	1/10	1140	1-1/2	1-1/2	102	19-1/2	18	\$92.80
497W	74,600	497	1250	1/10	1140	1-1/2	1-1/2	116	22-1/2	18	\$99.40
605W	90,800	605	1605	1/8	1125	2	2	135	23	22	\$108.40
793W	119,000	793	2105	1/6	1120	2	2	145	26-1/2	22	\$130.30
1010W	151,500	1010	2835	1/4	1125	2-1/2	2-1/2	201	27-7/8	26	\$165.60
1303W	195,500	1303	3830	1/2	1110	2-1/2	2-1/2	234	30-3/8	26	\$213.40

**SPECIFY VOLTAGE.** Prices are for 110 or 220 Volt single phase motors.  
3 Phase A.C.; or D.C.; or variable speed; prices on request.

**DISCOUNT** ..... 15% OFF

## WEIL CONDENSATION PUMP AND RECEIVER

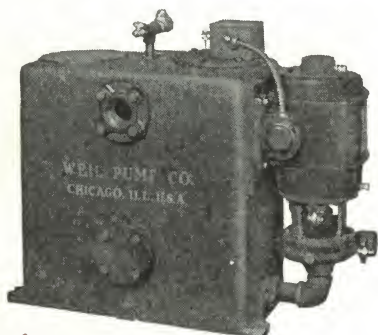


Fig. 4764

Returns condensation from radiation systems, unit heaters, heaters, steam coils, etc., and pumps them back to the boiler. **HOT**, this means a substantial saving in fuel. When steam is used for processes and all condensate is not returned to the boilers, receiver may also be used by adding an automatic water level control valve. For use in large buildings, greenhouses, industrial plants, etc., and to replace inefficient steam traps. The receiver is of **CLOSE GRAINED CAST IRON**. With high and low return inlet connections; either or both may be used. The automatic float switch is enclosed in cast iron box, and is actuated by a seamless copper float inside the tank. Cast bronze enclosed type impeller, hydraulically and dynamically balanced. High-grade ball bearing motors, durable and quiet. Ball bearings are sealed from dirt and moisture. Pumps can be furnished for pressures up to 200 pounds or for capacities up to 150,000 square feet of radiation, complete data and prices on request. We will be glad to help you to select the proper pump.

Unit No.	Max. Sq. Ft. of Direct Radiation	Disch. Press. Lbs.	H.P. Motor	Size Disch. Ins.	Cap'y. Pump Gals. Min.	Will Condense G.P.M.	Size Inlet Ins.	Cap'y. Return Receiver Gals.	Speed R.P.M.	Shpg. Wt. Lbs.	LIST EACH With Motor
RC-500	1,000	10	1/4	1	1 1/2	1 1/2	2	15	1750	295	\$224.00
RC-502	1,000	15	1/4	1	1 1/2	1 1/2	2	15	3450	300	\$254.00
RC-503	1,000	20	1/2	1	1 1/2	1 1/2	2	15	3450	305	\$282.00
RC-508	2,000	10	1/4	1	3	1	2	15	1750	295	\$237.00
RC-510	2,000	15	1/4	1	3	1	2	15	3450	300	\$267.00
RC-511	2,000	20	1/2	1	3	1	2	15	3450	305	\$295.00
RC-516	4,000	10	1/4	1	6	2	2	15	1750	295	\$250.00
RC-518	4,000	15	1/4	1	6	2	2	15	3450	300	\$280.00
RC-519	4,000	20	1/2	1	6	2	2	15	3450	305	\$308.00
RC-524	6,000	10	1/4	1	9	3	2	15	1750	295	\$263.00
RC-526	6,000	15	1/4	1	9	3	2	15	3450	305	\$293.00
RC-527	6,000	20	1/2	1	9	3	2	15	3450	305	\$321.00
RC-532	8,000	10	1/4	1 1/4	12	4	3	30	1750	405	\$310.00
RC-534	8,000	15	1/4	1	12	4	3	30	3450	400	\$310.00
RC-535	8,000	20	1/2	1	12	4	3	30	3450	400	\$340.00
RC-542	10,000	10	1/4	1 1/4	15	5	3	30	1750	405	\$323.00
RC-544	10,000	15	1/4	1	15	5	3	30	3450	400	\$333.00
RC-545	10,000	20	1/2	1	15	5	3	30	3450	400	\$353.00
RC-552	15,000	10	1/4	1 1/4	22	7 1/2	3	30	1750	415	\$347.00
RC-554	15,000	15	1/4	1	22	7 1/2	3	30	3450	400	\$336.00
RC-555	15,000	20	1/2	1	22	7 1/2	3	30	3450	410	\$366.00
RC-562	20,000	10	1/4	1 1/4	30	10	3	30	1750	415	\$360.00
RC-563	20,000	15	1/4	1	30	10	3	30	3450	410	\$349.00
RC-564	20,000	20	1/2	1	30	10	3	30	3450	410	\$379.00
RC-571	25,000	10	1/4	1 1/4	37 1/2	12 1/2	3	45	1750	560	\$416.00
RC-572	25,000	15	1/4	1	37 1/2	12 1/2	3	45	3450	555	\$423.00
RC-573	25,000	20	1/2	1	37 1/2	12 1/2	3	45	3450	575	\$445.00
RC-580	30,000	10	1/4	1 1/4	45	15	3	45	1750	580	\$437.00
RC-581	30,000	15	1/4	1	45	15	3	45	3450	575	\$445.00
RC-582	30,000	20	1/2	1	45	15	3	45	3450	575	\$458.00

Prices include pump; A.C. Single phase, 110 or 220 volt motor; (A.C. Three Phase, or D.C. prices on request); cast iron receiver; and automatic float switch. Automatic starter or phase protective device can be furnished, prices on request.

**DISCOUNT** ..... 50% OFF



**MINNEAPOLIS-HONEYWELL TEMPERATURE CONTROLS**

**Limit Controls.** Provide a measure of safety on different types of plants by checking the fire before the danger point in the plant is reached regardless of room temperature.

**3606-L200-1.** Surface aquastat. For hot water heating plants.

List Each, \$9.00

**3606-L204-2.** Pressure-trol. For steam heating plants.

List Each, \$9.00

**3606-L208-2.** Vaporstat. For vapor heating plants.

List Each, \$10.50

**3606-L219-1.** Airstat. For warm air heating plants.

List Each, \$9.00

**1-216-4.** Immersion Aquastat For hot water heating plants.

List Each, \$11.00

**3606 M-26-2 Motor.** Powerful Electric Motor to operate any dampers in domestic plants.

List Each, \$18.00

**4347 Electric Janitor.** A Temperature Regulator that is Fully Automatic. All-Electric, Reliable, For Warm Air, Steam, Vapor or Hot Water Heating Systems.

A sturdy damper motor controlled by the room thermostat operates to open and close the draft and check the dampers. A transformer unit connected to the lighting circuit delivers 20 volt current to the instruments. The latest "heat-leveling" type room thermostat controls the supply of heat so just the right amount is produced to keep your home at any desired temperature. It eliminates overheating and under-heating.

List Each, \$24.00

**Unit Heater Controls.** Fan motors are controlled to operate ONLY when there is sufficient temperature or pressure in the unit heater.

**3606 T42-1.** Controls motor directly. It is a 2-wire line voltage bellows actuated Mercury switch thermostat.

List Each, \$13.50



**3606-L404-3 Pressure-trol.** For steam systems only. Regulates fan motor operation through pressure variations.

List Each, \$9.00

**3606-L409-3 Surface Aquastat.** Controls fan motor operation according to the temperature in the Unit Heater.

List Each, \$9.00



**3606-F205-1 Chronotherm Electric Clock Room Thermostat.** It eliminates temperature variations, maintains uniform even-ized heat, by pre-timing heating to anticipate time lag. Every half hour, 48 times a day, the temperature trend is 'felt' and it opens or checks the fire as needed BEFORE thermostatic action would normally take place. Keeping heat output under perfect control. Entirely automatic. Set at desired temperature for day and night operation and forget it.

List Each, \$44.00

**DISCOUNT ..... 25% OFF**

**SHEER HEAT CONTROL—With Safety Features****IT IS AUTOMATIC**

The Regulator automatically, with SAFETY and without attention, opens and shuts the draft and check doors on the furnace, or boiler. Also used as a feed control on stokers, controlling steam valves; controlling separate gas valves, etc. An even, comfortable temperature is maintained constantly. When the room temperature drops below the desired temperature the thermostat closes the circuit; then the furnace draft door opens as the check door closes. When the room temperature reaches the desired temperature the thermostat opens the circuit; then the furnace door opens as the draft door closes.

**50,000 USERS SAVE COAL**

Each degree above necessary temperature wastes up to 5% of the fuel. For example: A 75 degree home temperature may use  $\frac{1}{4}$  more fuel than a 70 degree temperature. The operating cost is less than \$0.0025 a day.

**UNIFORM TEMPERATURE**

By keeping the fire under control the heat is supplied as needed, the Heat Regulator adjusting the draft and check doors on an average of twenty times every day. It is estimated that overheating causes 9 out of 10 colds.

**THE SAFETY ROOM THERMOSTAT**

The thermostat is extremely sensitive, yet simple and sturdy. The thermostat functions upon only one degree change in room temperature. It has a sturdy bimetallic coil and is not affected by floor vibration. Magnetic make and break, platinum-iridium contacts with a self-wiping action, that assures long life with no danger of arcing.

**SAFETY DAMPER MOTOR**

Unusually durable construction. Bronze gears, steel pinions are used instead of die cast alloy. Has lifting power of eight pounds for both draft and check doors. Powerful electric induction motor instantly responds to the room thermostat. An automatic SAFETY re-engagement of the fueling switch makes it impossible to leave the Heat Regulator out of circuit after fueling the furnace.

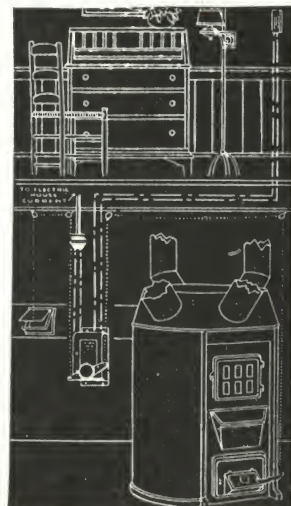
**IT IS SAFE**

Automatically the furnace draft door is closed in that the electric current fails. The installation cost is low because a SAFETY two-wire circuit is used in place of the usual three-wire circuit. Complete with installation accessories, pulley, wire, staples and transformer. The temperature range is 55° to 85° Fahrenheit. Electrical rating is 15 watts. Thermostat circuit is 20 volts, 110 volts 60 cycle. Other voltages can be furnished.

**★ NET EACH, \$29.50**



Fig. 4587





## SAND'S TANK HEATER

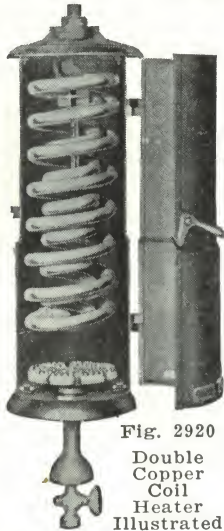


Fig. 2920

Double  
Copper  
Coil  
Heater  
Illustrated

Height 24 inches. diam. 8 in., will heat 30 to 40 gallon tank.  $\frac{1}{2}$  in. gas supply,  $\frac{3}{4}$  in. water supply, 3 in. flue connection. No. 20 Stubbs gauge  $\frac{3}{4}$  in. seamless copper tubing double coil, cast iron jacket, black japanned finish. Special design burner and patented baffle plate. Extra heavy red brass valve, large bottom feed mixer. Complete with two heavy couplings with unions, making connection easy. Shipping weight 45 lbs.

Mfrs. No. ★ NET EACH  
50 Double, as shown.....\$8.50  
40 Single, not shown.....\$6.25  
Water Heater Cock only.....\$0.65

## FIREPOT WATER HEATER



Fig. 4268

For use in all coal fired warm air furnaces and hot water heating boilers.

Cast iron. Tapped 1 inch with center openings,  $2\frac{1}{2}$  inch, 6 inch or 9 inch, use pipe plugs for other openings.

Develops high rate of efficiency due to spiral ribs inside the unit which create active circulation, this reduces the liming tendencies.

Sketches or typical layouts on request.

Size No.	Capacity Gallons	★ NET EACH
30	30	\$1.35
42	42	\$1.58
66	66	\$3.90

## FURNACE COILS



Fig. 4344

Iron pipe size.  $2\frac{1}{2}$  inch centers.  
1 by 18 inch.....★ NET EACH, \$1.15  
1 by 26 inch.....★ NET EACH, \$1.35

B & G INDIRECT DOMESTIC WATER HEATERS  
FOR STEAM, VAPOR OR VACUUM HEATING BOILERS

Heats water with water throughout the entire year in any type heating boiler. Ordinarily a "banked" fire on one fifth of the grate surface will develop sufficient heat in the summer to provide all the necessary hot water for domestic use. Other water heaters are entirely eliminated. Assures a saving of from half to three-fourths of former domestic water heating costs.

Hot water from the steam or vapor heating boiler flows into the casing of the heater and back again to the boiler so there is a constant circulation of hot boiler water through the casing of the Heater. Water is heated as it circulates through the copper coil submerged in the boiler water within the heater casing. As water is heated it flows into the hot water storage tank for use from any hot water faucet. The boiler water and the domestic water never mix. Typical installations furnished upon request. Allow 50% to 100% extra heater capacity for oil heating boilers because of intermittent firing. For best results on sectional boilers tap every section three inches below the normal waterline.

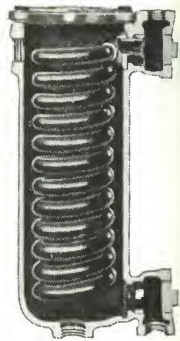


Fig. 4267

Size No.	Capacity Gallons	Maximum Length	Maximum Width	Shell Openings	Coil Openings	Shipping Weight	★ NET EACH
<b>SINGLE COIL. For Residences, Duplex Apartments, Small Buildings</b>							
30	30	11 $\frac{3}{4}$ "	5 $\frac{1}{8}$ "	1 "	3 $\frac{3}{4}$ "	12	\$3.62
40	40	12 $\frac{3}{4}$ "	5 $\frac{1}{8}$ "	1 "	3 $\frac{3}{4}$ "	13	\$6.00
52	52	14 $\frac{3}{4}$ "	7 $\frac{1}{8}$ "	1 "	3 $\frac{3}{4}$ "	15	\$8.58
66	66	15 $\frac{3}{4}$ "	7 $\frac{1}{8}$ "	1 $\frac{1}{2}$ "	1 "	29	\$10.89
82	82	18 $\frac{3}{4}$ "	7 $\frac{1}{8}$ "	1 $\frac{1}{2}$ "	1 "	39	\$13.53
100	100	20 $\frac{3}{4}$ "	7 $\frac{1}{8}$ "	1 $\frac{1}{2}$ "	1 "	40	\$16.50
120	120	22 $\frac{3}{4}$ "	7 $\frac{1}{8}$ "	1 $\frac{1}{2}$ "	1 "	42	\$19.80
144	144	25 $\frac{1}{4}$ "	7 $\frac{1}{8}$ "	1 $\frac{1}{2}$ "	1 "	46	\$23.76
<b>DOUBLE COIL. For Apartments, Garages, Small Factories</b>							
160	160	12 "	11 $\frac{1}{2}$ "	2 "	1 $\frac{1}{2}$ "	53	\$26.40
192	192	14 $\frac{3}{4}$ "	11 $\frac{1}{2}$ "	2 "	1 $\frac{1}{2}$ "	59	\$31.68
300	300	19 $\frac{3}{8}$ "	11 $\frac{1}{2}$ "	2 "	1 $\frac{1}{2}$ "	78	\$43.32
400	400	23 $\frac{3}{8}$ "	11 $\frac{1}{2}$ "	2 "	1 $\frac{1}{2}$ "	86	\$57.75
<b>TRIPLE COIL. For Office Buildings, Factories, Apartments</b>							
600	600	21 $\frac{3}{8}$ "	15 $\frac{3}{4}$ "	3 "	2 $\frac{1}{2}$ "	230	\$86.63
800	800	25 $\frac{3}{8}$ "	15 $\frac{3}{4}$ "	3 "	2 $\frac{1}{2}$ "	250	\$115.50
1000	1000	29 $\frac{1}{4}$ "	15 $\frac{3}{4}$ "	3 "	2 $\frac{1}{2}$ "	290	\$144.80
<b>DOUBLE TRIPLE COIL. For Heavier Requirements. Prices on Request</b>							

## MALTESE WATER HEATERS

Full pattern. Can be used in any surface burning stove or furnace, or in steam or hot water boiler. Tapped top and bottom. Two or more heaters can be connected with short nipples. In selecting size, add pipe surface to radiation desired. Two collars.



Fig. 943

Dia. Inch	Tap- meter Inch	Radi- ation Sq. Ft.	Heating Cap. of Tank	List Each
9	$\frac{3}{4}$	30	30 gallons	\$ 3.80
12	1 or $1\frac{1}{4}$	50	50 gallons	5.00
15	2	75	75 gallons	10.00
18	$2\frac{1}{2}$	100	100 gallons	15.00
21	3	150	175 gallons	19.00
24	3	200	225 gallons	24.00
27	3	250	300 gallons	29.00
30	$3\frac{1}{2}$	300	350 gallons	35.00

DISCOUNT.....20% OFF

## BRONZE POWDER AND BRONZING LIQUID

Bronze Powders are to be mixed with Bronzing Liquid in small quantities when ready to apply. Results are better and cost is less than "Ready Mixed" Bronzes.



Fig. No. 3525

## ALUMINUM BRONZE

Size Can	★ NET CAN
$\frac{1}{2}$ pound.....	\$0.50
1 pound.....	\$0.85



Fig. No. 3526

## GOLD OR COPPER BRONZE

Size Can	★ NET CAN
1 pound gold...	\$0.85
1 pound copper...	\$0.95

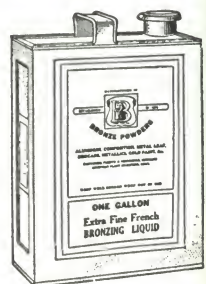


Fig. No. 2332

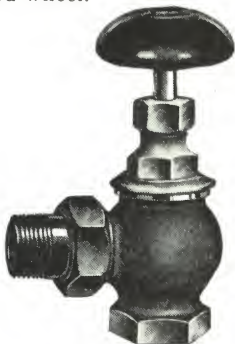
## BRONZING LIQUID

Size Can	★ NET CAN
$\frac{1}{2}$ gallon.....	\$0.95
1 gallon.....	\$1.75



## STEAM RADIATOR VALVES

Rough body, nickel plated all over. Composition discs; disc holder is size Jenkins standard disc. Improved ground union. Right hand threads. Wood wheel.



Angle Pattern  
Fig. No. 947

Size, Inches	List Each
1/4	\$ 4.30
1/2	5.10
3/4	6.40
1	8.40
1 1/2	13.60

DISCOUNT ..... 60% OFF



Corner Pattern  
Left Hand  
Fig. 949L  
Right Hand  
Fig. 949R

Size, Inches	List Each
1/4	\$ 4.75
1/2	5.60
3/4	7.05
1	9.25
1 1/2	15.00

DISCOUNT ..... 25% OFF

## THE NYE UNION VALVE NIPPLE WRENCH



Fig. 2331

When wrench is inserted in radiator union valve it catches nipples at the base, avoiding danger of shoving them. Light, but strong enough to stand strain required in use. Takes sizes 3/8 to 2 in. Guaranteed.

★ NET EACH, \$1.00

## FLOOR AND CEILING PLATES



Fig. No. 986

Cold rolled steel, nickel plated, full polished. Hinged.

### LIST PRICES EACH

Size, In.	List Each
1 1/2	\$0.27
2	.28
2 1/2	.32
3	.35
2 1/2	\$0.38
3	.45
3 1/2	.65
4	.80

DISCOUNT ..... 80% OFF

## HOT WATER RADIATOR VALVE

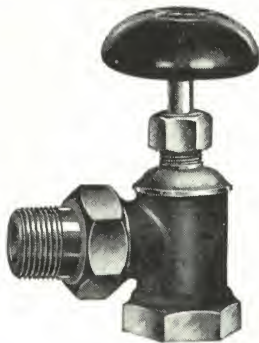


Fig. No. 1999

Rough body. Nickel plated all over. Improved ground union. Right hand threads. Wood wheel.

Size, Inches	List Each
1/4	\$ 3.70
1 1/4	4.50
1 1/2	5.75
2	7.30
2 1/2	12.00

DISCOUNT ..... 60% OFF

## UNION RADIATOR ELLS

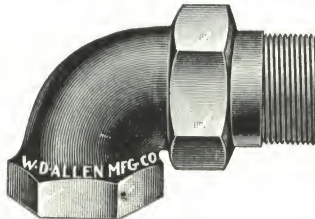


Fig. 953  
Complete Union Ell

Rough brass body, nickel plated all over. Improved ground union. Right hand threads.

### LIST PRICES EACH

Size, Inch	953 Union Ell	3276N Coupling Nut Only	3276T Tail Piece
3/4	\$2.00	\$0.75	\$0.95
1	2.50	.95	1.20
1 1/4	3.30	1.25	1.60
1 1/2	4.25	1.60	2.00
2	7.20	2.00	3.25

DISCOUNT ..... 60% OFF

## RADIATOR VALVE WOOD WHEELS



Fig. No. 2329

Rock maple wheels, used to replace broken radiator valve handles.

Diam., Inches	Top Plate, Inches	Bottom Plate, Inches	No. of Holes
2	1	1	2
2 1/2	1 1/4	1 1/4	2
2 3/4	1 1/2	1 1/2	2
3	1 3/4	1 3/4	2
3 1/2	2	2	2
3 3/4	2 1/4	2 1/4	2
4	2 1/2	2 1/2	3

★ NET EACH, \$0.05

## COMPRESSION RADIATOR AIR VALVES

Brass valves, well made, 1/8 inch size. Nickel plated.

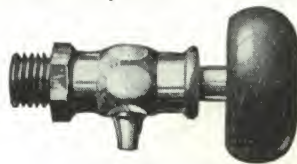


Fig. No. 960

Fig. No. 960, Wheel Hdl.

★ NET DOZEN, \$1.20

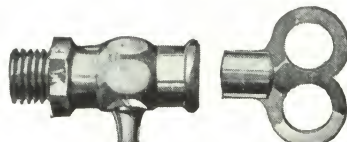


Fig. No. 961

Fig. No. 961, Loose Key.

★ NET DOZEN, \$1.20

Keys for Fig. No. 961, above.

★ NET DOZEN, \$0.48

## FOUR-IN-ONE BAKELITE RADIATOR VALVE WHEEL



Fig. 4416

Neat appearing when attached. ALWAYS COOL. Durable. One size fits four popular valve stems, 1/4, 3/8, 1/2 and 5/8 inch. Steel plate on bottom lifts out and is turned, putting proper size hole in center to fit valve stem. 2 1/2 inch diameter.

★ NET EACH, \$0.20

## EVERLASTING RADIATOR WOOD WHEELS

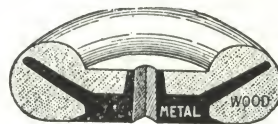


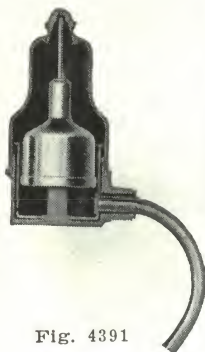
Fig. No. 2330

Re-enforced with metal, cannot break and will not get hot.

### ★ NET PRICES EACH

No. of Wheel	Size of Valve	Outside Diam., In.	Sq. Socket, In.	Net Each
B	1/4 & 3/8	2 3/8	1/4	\$0.24
C	1/2	2 1/2	3/8	.24
D	3/4	2 3/4	1/2	.25
E	1	3	3/4	.25
F	1 1/4	3 1/4	1 1/8	.26
G	1 1/2	3 3/8	1 1/4	.26
H	2	3 3/4	1 1/2	.28





### HOFFMAN "AIRPORT" AIR VALVE

Operates even if water floods valve. Non-adjustable. Forged brass base and nipple. Non-corrosive nickel silver valve pin. 1/4 inch connection. 10 pounds maximum pressure.

★ NET, \$1.35  
Angle Pattern.

Straight Shank.  
★ NET \$1.95

### HOFFMAN SIPHON AIR VALVE

For one pipe gravity systems. Freely vents all air, but prevents escape of steam or water. 1/4 inch connection.

Mfrs. No. 1.  
★ NET EACH,  
\$2.35

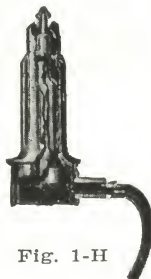


Fig. 1-H

### HOFFMAN SIPHON AIR AND VACUUM VALVE

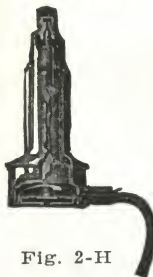


Fig. 2-H

Prevents return of air to radiator when once vented. Makes a vacuum system from a one-pipe installation. 1/2 in. connections.

Mfrs. No. 2.  
★ NET EACH,  
\$4.35

### HOFFMAN QUICK VENT FLOAT AIR AND VACUUM VALVE

For service where air must be vented without escape of steam or water and return of air through vent port prevented. Pipe connections 3/8 in. Specify 1/4 in. port for pressure of 3 lbs. or over; 3/8 in. port for less than 3 lbs.

Mfrs. No. 6.  
★ NET EACH, \$13.10 Fig. 6-H



### HOFFMAN VACUUM VALVE

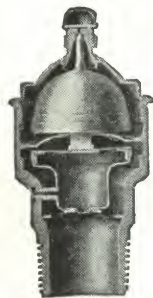


Fig. 16-H

Used on one-pipe low pressure systems where No. 2 Siphon Air and Vacuum Valves are installed on radiators. Action of valve allows air to vent freely but closes against return of air when pressure goes down. It is placed at end of steam main or end of dry return lines. 3/4 inch pipe thread connection and 1/2 inch venting port.

Mfrs. 16 .....★ NET EACH, \$5.00

1 or 2 .....★ NET 3 or More .....Prices on Request

### HOFFMAN QUICK VENT VALVE

For quick venting mains, blast coils or for any service where water is not a factor. Vent port 1/4 inch diameter. Specify: 1/4 or 3/4 inch pipe connection.

Mfrs. No. 4 .....

★ NET EACH, \$2.80

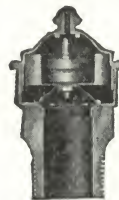


Fig. 4-H

### HOFFMAN RETURN LINE VALVE

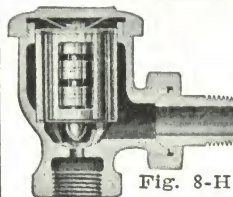


Fig. 8-H

For modulating systems. Freely discharges condensation and air, positively closing against steam. Also used as steam trap.

Mfrs. No. 8—1/2 in. connection.

★ NET EACH, \$4.00

Mfrs. No. 9—3/4 in. connection.

★ NET EACH, \$6.85

### HOFFMAN BELLOWS TRAP

For vapor and vacuum heat as well as for pressures up to 25 pounds. Steam metal body, nickel plated. Nickel-silver valve pin and seat is wear-resisting. 1/2 inch connections. 3/8 inch port.

Angle Pattern ★ NET EACH, \$5.25  
Swivel Pattern ★ NET EACH, \$5.25

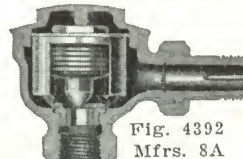
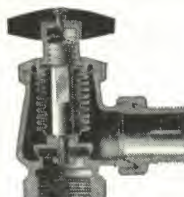


Fig. 4392

Mfrs. 8A

### HOFFMAN PACKLESS RADIATOR VALVE

Fig. 4393. Mfrs. 37  
For one or two pipe vacuum systems. Leak-proof bellows, no escaping of steam or water, and no efficiency loss from in-leakage of air into vacuum pump or system. High lift from seat.



One turn of bakelite hexagonal handle opens or closes valve. Angle pattern.

Size Inch	★ NET EACH
1/2	\$3.50
3/4	\$4.00
1	\$5.00
1-1/4	\$6.00
1-1/2	\$7.50

### HOFFMAN KOMPO-GAGE

The Kompo Gage accurately indicates the pressure or vacuum conditions under which the plant is operating. Hand may be easily reset to zero by turning the externally operated set screw. Pressure is measured up to 30 pounds, the first 5 pounds being shown in ounce graduations, with a retard from 5 to 30 pounds. Vacuum is shown up to 30 inches, the first 10 inches indicated in 1/2 inch graduations, with a retard from 10 to 30 inches. 1/4 inch pipe connection.

Fig. 5170

Mfrs. 14-G .....★ NET EACH, \$4.95

Prices on Request

### "MAGIC" AIR VALVE



Fig. No. 983



Automatic air valve guaranteed to remove all air from a steam heating system. Shuts off steam and water automatically. Float will not stick to the jacket, and causes enough agitation to drain off the condensation.

Lots  
of

★ NET  
EACH

1 to 11.....	\$0.25
1 dozen or more.....	\$0.22
6 dozen or more.....	\$0.20
1 gross or more.....	\$0.18

### "DIXIE" SYPHON THERMOSTATIC AIR VALVE

# 65c

★ NET EACH



Fig. No. 3427

Guaranteed for 1 year

All metal. Non adjustable. 3 1/8 inches high. The "DIXIE" Siphon Thermostatic Air Valve operates on the diaphragm principle. Thermostatic float, with concave phosphor bronze diaphragm, which is the heart of the valve, is extra large in size and operates on the slightest change in temperature. Heavy cast base. Highly polished. Siphons are shaped so as to fit into the new pattern narrow section radiators 1/8 inch connection.

Lots of 1 to 11,

★ NET EACH, \$0.6

Lots of 1 dozen or more,

★ NET EACH, \$0.5





566  
SIPHON  
AUTOMATIC  
AIR  
VALVE

★NET  
EACH

Works on thermostatic principle. Adjustable. On inside of valve a sealed float containing volatile liquid which vaporizes and creates internal pressure when steam reaches the valve. On bottom of float is a phosphor bronze diaphragm, concave in shape. When rising up steam, cold air is forced out of the system through the air valve. When steam reaches the float the diaphragm "pops" completing the seat at top of valve. As valve cools off the diaphragm goes back to normal position, leaving the valve open. 2 1/4 inches high. Heavy cast brass. Nickel plated. 1/2 inch connection.

THERMOMETERS



Fig. 966.—For steam and hot water heating. Straight Pattern. 1/2 in. thread.

★NET EACH,  
\$0.95

Fig. 967.—Angle Pattern. 1/2 in. thread.

★NET EACH,  
\$1.10

For Steam and Altitude Gauges, refer to index.



Fig. 967

"C-LER-TITE" WHITE  
PIPE JOINT COMPOUND

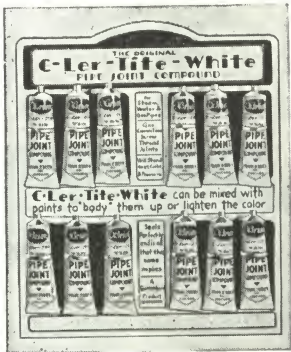


Fig. 3054

For steam, water and gas pipes. For gas connections and screw thread joints. Will stand heat, cold and pressure.  
Tubes on Card .....★NET, \$0.84  
1 Pound Can .....★NET EACH, \$0.15  
5 Pound Can .....★NET EACH, \$0.25

SMOOTH-ON IRON CEMENT

No. 1. Quick hardening iron cement.  
No. 2. Slow hardening hydraulic iron cement.  
Yellow Label. In powdered form. Used by mixing with water. Used for repairing breaks in castings, making tight joints and seams, and stopping leaks in boilers, pipe lines, pressure containers, etc. Becomes hard as iron when metallized, and expands at the same rate. May be used on iron, brass, steel, copper, lead, aluminum, etc.; either alone or as a filling compound under a plate, and will withstand fire, water, steam, oil, and very high pressures. No. 1 will be shipped unless otherwise specified.

Size	★ NET POUND
1 pound. 1 to 5 tins .....	\$0.50
1 pound. 6 to 35 tins .....	\$0.45
1 pound. 36 or more tins .....	\$0.42 1/2
5 pound tin .....	\$0.40
5 pounds. 2 to 5 tins .....	\$0.37 1/2
5 pounds. 6 or more tins .....	\$0.35
25 pound keg .....	\$0.32 1/2
50 pound lot .....	\$0.30
100 pound keg .....	\$0.27 1/2

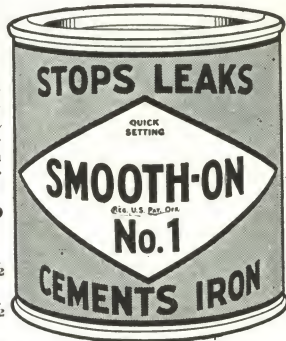


Fig. No. 974

Smooth-On No. 4A for Castings

An iron and steel foundry cement. For filling surface defects, for repairing blow holes or blemishes in iron or steel castings. In powdered form. Used by mixing with water. When hardened it has the color and appearance of cast iron and can be filed like iron. It makes good castings look better.

Fig. No. 973

Size	★ NET POUND
1 pound tin .....	\$0.40
1 pound. 6 to 35 tins .....	\$0.36
1 pound. 36 or more tins .....	\$0.34
5 pound tin .....	\$0.32
5 pounds. 2 to 5 tins .....	\$0.30
5 pounds. 6 or more tins .....	\$0.28
25 pound keg .....	\$0.26
50 pound lot .....	\$0.24
100 pound keg .....	\$0.22

Smooth-On No. 7 Hydraulic Iron Cement

Waterproofs and oilproofs concrete, brick or stone work. Hardens concrete floors. In powder form. The only composition which can be effectively applied to a DAMP or WET SURFACE. For waterproofing porous cellar walls from the inside. For making hard dustproof and oilproof concrete floors. Unequalled for garage floors.

Fig. No. 4044

Size	★ NET POUND
1 pound tin .....	\$0.30
1 pound tin, 6 to 35 tins .....	\$0.27
1 pound tin, 60 or more tins .....	\$0.25 1/2
5 pound tin .....	\$0.24
5 pound tin, 2 to 5 tins .....	\$0.22 1/2
5 pound tin, 6 or more tins .....	\$0.21
25 pound keg .....	\$0.19 1/2
50 pound lot .....	\$0.18
100 pound keg .....	\$0.16 1/2



Fig. No. 2358

SMOOTH-ON HOUSEHOLD IRON CEMENT

7 oz. can, handy household size. Stops leaks in stoves, radiators, and pipes, repairs iron pots and kettles, etc. A chemically prepared iron compound made and sold in a powder form and used by mixing with water to the consistency of stiff putty. Must be applied immediately, because the action is rapid, acting without heat. In a few hours it metallizes as hard as iron and becomes a part of the metal to which it is applied. One pound of Smooth-On iron cement will fill 10 cubic inches.

Singly (1 to 11) .....★ NET CAN, \$0.30  
1 1/4 ounce can.....★ NET CAN, \$0.10

DIXON'S PIPE JOINT COMPOUND

Better and cheaper than red lead for joints of radiators, steam and hot water apparatus, gas pipes in streets or buildings, and the various uses of gas-fitters, steam-fitters, plumbers and machinists.



Fig. No. 977

Size Package	★ NET POUND
1 pound .....	\$0.35
5 pounds .....	\$0.30
10 pounds .....	\$0.28
25 pounds .....	\$0.26
50 pounds .....	\$0.24
100 pounds .....	\$0.23

KEY GRAPHITE PASTE



Fig. 5229

A leakproof sealing compound for all joints such as oil, steam, air, chemicals, refrigeration, etc., EXCEPT WATER. It is efficient where there is heat. Joint does not have to be blasted loose. It will not corrode or oxidize. Thin with water and brush on.

Package	In Pounds	★ NET POUND	★ NET TOTAL
1/4	144	.....	\$0.25
1	36	\$0.75	\$0.75
3	24	\$0.55	\$1.65
5	12	\$0.50	\$2.50
10	6	\$0.45	\$4.50
Less Than Case.....		★ NET	
Case, 1/4 to 10 Lb. Cans.....		20% OFF	
30 Pound Bucket.....		★ NET, \$10.50	
60 Pound Bucket.....		★ NET, \$15.00	



# FLUE CLEANERS AND BRUSHES

## ENGINEERS' FAVORITE FLUE CLEANER

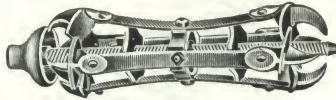


Fig. No. 1345

Made of malleable iron and steel. Cutting edges can be expanded or contracted.

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
1 1/2 inch	\$1.00	3 inch	\$1.50
1 3/4 inch	1.00	3 1/4 inch	1.63
2 inch	1.00	3 1/2 inch	1.75
2 1/4 inch	1.13	3 3/4 inch	1.88
2 1/2 inch	1.25	4 inch	2.00
2 3/4 inch	1.38		

## PILLEY COMBINATION FLUE CLEANER

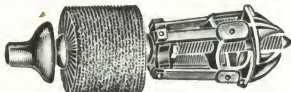


Fig. No. 1347

Ends can be expanded to fit the diameter of the tube. Follows brush leaves tube absolutely clean.

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
2	\$1.80	3	\$2.70
2 1/4	2.02	3 1/4	2.92
2 1/2	2.25	3 1/2	3.15
2 3/4	2.47	3 3/4	3.37
		4	3.60

## ELLIPTIC ADJUSTABLE CLEANER



Fig. No. 1342

One of the most popular and best known scrapers. Substantially made.

Size, Inches	★ NET EACH
1 1/2	\$1.80
1 3/4	1.80
2	1.80
2 1/4	2.02
2 1/2	2.25
2 3/4	2.47
3	2.70
3 1/4	2.92
3 1/2	3.15
3 3/4	3.37
4	3.60

## BOILER CLEANING BRUSHES

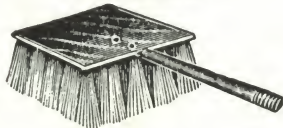


Fig. No. 945

All iron and steel, with wire bristles 1 inch long. Short iron pipe handle threaded at end for coupling and any length handle. Top and handle riveted to brush part.

Width, Inches	Length, Inches	★ NET EACH
5	3	\$0.50
3	5	.50
2	3	.40

## RUGGLES PERFECTION FLUE CLEANER



Fig. No. 1350

Will clean welded flues and remove scale without cutting the metal. It will clean hot or cold flues without changing the temper. Light yet strong. Can be operated by a flexible handle, where space is limited.

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
1 1/4	\$1.40	2 3/4	\$1.93
1 1/2	1.40	3	2.10
1 3/4	1.40	3 1/4	2.28
2	1.40	3 1/2	2.45
2 1/4	1.58	4	2.80
2 1/2	1.75		

## THE CHICAGO BOILER TUBE CLEANER



Fig. No. 3101

With the spiral shear cut blades will cut out, clean and remove the scale and soot out of boiler tubes. The "CHICAGO" will remain effective as the blades wear themselves sharp.

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
1 1/4	\$2.50	2 3/4	\$3.45
1 1/2	2.50	3	3.75
1 3/4	2.50	3 1/4	4.10
2	2.50	3 1/2	4.40
2 1/4	2.85	3 3/4	4.70
2 1/2	3.15	4	5.00

## EXPANSION BRUSH



Fig. No. 1344

Made of steel and malleable iron. The steel brushes in each section are staggered, cleaning the entire diameter of the tube. Removes scale as well as soot and ashes.

Size, Inches	★ NET EACH
2	\$1.30
2 1/4	1.45
2 1/2	1.65
2 3/4	1.80
3	1.95
3 1/4	2.10
3 1/2	2.30
4	2.60

## FURNACE BRUSH

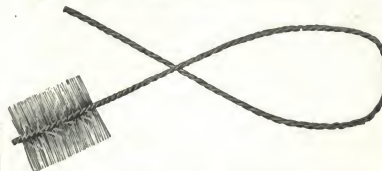


Fig. No. 2161

Made of fine steel wire with 5 foot flexible handle. 4 inch outside diameter.

★ NET EACH, \$0.50

## SPIRAL WIRE FLUE CLEANER

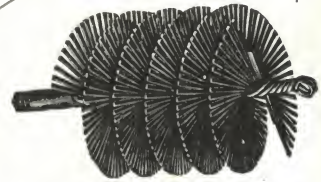


Fig. No. 1348

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
1 1/2	\$0.30	3	\$0.40
1 3/4	.30	3 1/4	.40
2	.30	3 1/2	.40
2 1/4	.34	3 3/4	.40
2 1/2	.38	4	.40
2 3/4	.41		

## INGALLS' FLUE CLEANERS Without Brush

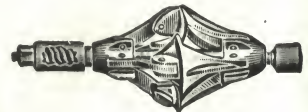


Fig. No. 1346

Self adjustable, conforming to the inside of the tube. The brush of Fig. 1346-A can be renewed.

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
2	\$1.20	3	\$1.80
2-1/4	\$1.35	3-1/4	\$1.80
2-1/2	\$1.50	3-1/2	\$2.10
2-3/4	\$1.65	3-3/4	\$2.20
		4	\$2.40

## With Brush



Fig. No. 1346-A

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
2	\$1.50	3	\$2.20
2-1/4	\$1.68	3-1/4	\$2.20
2-1/2	\$1.88	3-1/2	\$2.20
2-3/4	\$2.05	3-3/4	\$2.20
		4	\$3.00

## FINE WIRE FLUE CLEANER



Fig. No. 1348-B

Size, Inches	★ NET EACH	Size, Inches	★ NET EACH
1 1/2	\$0.30	3	\$0.40
1 3/4	.30	3 1/4	.40
2	.30	3 1/2	.40
2 1/4	.34	3 3/4	.40
2 1/2	.38	4	.40
2 3/4	.41		

Boiler Tubes Are Measured on the Outside and Cleaners Are Made Undersize So They Fit Inside.



# HEATER CLEANING FINE WIRE BRUSHES

Brushes for Cleaning Hot Water Heaters, Steam Heaters, Section Boilers, Etc.

Made of fine round steel wire. With 1/4 inch short iron pipe thread for connecting handle. Brushes are trimmed with square corners. For use on all types of section boilers, hot water heaters, steam heaters, etc.

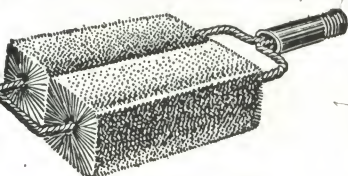


Fig. 946—Fig. 3340

Fig. 946. Square end. Size 1 3/4 x 4 inches.

★ NET EACH 45¢

Fig. 3340. Square end. Size 2 3/4 x 4 1/2 inches.

★ NET EACH \$0.90

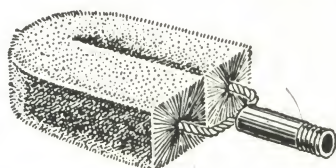


Fig. 3883

Fig. 3883. Round end. Size 1 3/4 x 6 inches.

★ NET EACH \$0.50

## COMMON GRATE BARS



Fig. No. 2093

Length, Width, Height, Air Space, In.	Wt., Lbs.	Length, Width, Height, Air Space, In.	Wt., Lbs.
2 3/4 x 1 1/2	16	42x3	5 5/8
2 3/4 x 1 1/2	17	48x3	60
2 3/4 x 1 1/2	17	50x3	60
2 3/4 x 1 1/2	23	54x3	70
2 3/4 x 1 1/2	24	60x3	90
2 3/4 x 1 1/2	34	66x3	105
2 3/4 x 1 1/2	36	72x3	115

Net per Lb., \$0.07 1/2

★ Net per Lb., \$0.07

## IMPROVED GRATE BAR

Thickness of metal, 1/2 in.



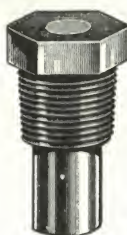
Fig. No. 2094

Length, Width, Height, Air Space, In.	Wt., Lbs.	Length, Width, Height, Air Space, In.	Wt., Lbs.
6 x 1 1/2	65	54x6	115
6 x 1 1/2	75	60x6	130
6 x 1 1/2	85	66x6	145
6 x 1 1/2	100	72x6	160

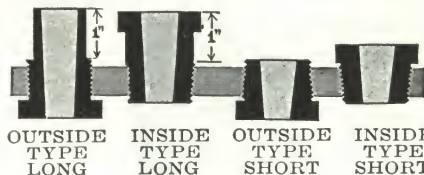
★ Net Per Lb., \$0.08

## FUSIBLE PLUGS

INSIDE OR PRESSURE SIDE



LONG PATTERN



OUTSIDE TYPE LONG INSIDE TYPE LONG OUTSIDE TYPE SHORT INSIDE TYPE SHORT



SHORT PATTERN

OUTSIDE OR FIRE SIDE

**STANDARD TYPE.** Made of cast brass and are filled with pure Banca tin. Fig. 154L long pattern fusible plugs 1/2 to 1-1/2 inch comply with the A. S. M. E. Boiler Code for pressures up to 175 pounds and for some city and state ordinances that require Fusible Plugs with extensions. Fusible plugs for higher pressures, prices on request. Marine Type Fusible Plugs can be furnished, prices on request.

Fig. No.	Type	Pressure, Pounds	For Insertion	3/8 I.P.T.	1/2 I.P.T.	3/4 I.P.T.	1 I.P.T.	1-1/4 I.P.T.	1-1/2 I.P.T.
154S-OS	Stand.-Short	to 30	Outside	\$0.55	\$0.60	\$0.75	\$1.00	\$1.50	\$2.00
154S-IS	Stand.-Short	to 30	Inside	\$0.55	\$0.60	\$0.75	\$1.00	\$1.50	\$2.00
154L-OS	Stand.-Long	to 175	Outside	\$1.10	\$1.20	\$1.50	\$2.00	\$3.00	\$4.00
154L-IS	Stand.-Long	to 175	Inside	\$1.10	\$1.20	\$1.50	\$2.00	\$3.00	\$4.00

<b>DISCOUNT</b>	(Short Pattern, 1	Inch and Smaller	.. 39% OFF
	(Short Pattern, 1-1/4	Inch and Larger	.. 17% OFF
	(Long Pattern, 1	Inch and Smaller	.. 54% OFF
	(Long Pattern, 1-1/4	Inch and Larger	.. 39% OFF

## BOILER ROOM FIRING TOOLS



Fig. No. 3305



Fig. No. 3306



Fig. No. 3307



Fig. No. 3308

Made of solid forged steel. These tools, according to their size, are used in the Home, Apartment Building, Factory and Mill, Steamship; in fact, wherever there is a fire burning. The smaller sizes are kept in stock in most Hardware Stores.

★ NET PRICES EACH

	Fire Hoe No. 3305	Fire Hook or Poker No. 3306	Slice Bar No. 3307	Clinker Hook No. 3308
2 ft. x 1 1/4 in.	\$0.75	\$0.50	\$0.75	\$1.00
4 ft. x 1 1/4 in.	1.15	.75	1.15	1.50
6 ft. x 1 1/4 in.	1.50	1.00	1.50	2.00
5 ft. x 1 1/2 in.	2.50	1.50	2.00	2.45
6 ft. x 1 1/2 in.	2.75	1.75	2.50	2.70
8 ft. x 1 1/2 in.	3.00	2.00	3.00	2.95
6 ft. x 1 3/4 in.	3.05	2.05	2.90	3.25
7 ft. x 1 3/4 in.	3.30	2.40	3.15	3.60
8 ft. x 1 3/4 in.	4.00	2.95	3.40	4.15
9 ft. x 1 3/4 in.	5.85	3.60	5.10	5.10
10 ft. x 1 3/4 in.	6.90	4.50	6.85	6.50
11 ft. x 1 in.	8.55	5.40	8.55	8.10
12 ft. x 1 in.	10.35	6.30	10.35	9.90

## ASH HOE WITH PIPE HANDLE

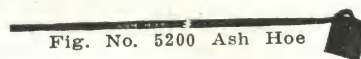


Fig. No. 5200 Ash Hoe

Made of forged steel. One piece Ash Hoe complete with 1/2-inch pipe handle, 8 feet long.

Fig. No. 5200.....★ Net Each, \$2.60

## MAGIC FLUE BLOWERS

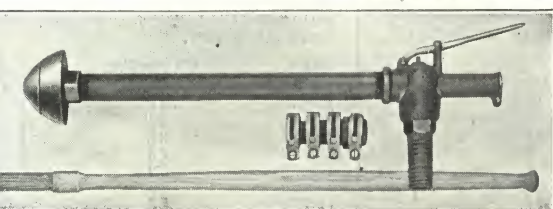


Fig. No. 153

The latest improved model of our well known Magic blower. Stuffing box in the valve eliminates possibility of steam escaping under the lever.

The Magic is serviceable and reliable. It is well made and does good work. List price is for blower with wood handle, clamps and nipple only—hose extra.

No.	Size Hose Connection	O. D. of Tubes	Net, Each
1.....	1/2 in.	2 to 2 1/4	\$6.20
2.....	3/4 in.	2 1/2 to 2 3/4	\$7.05
3.....	1 in.	3 to 3 1/4	\$7.65
4.....	1 1/4 in.	3 1/2 to 3 3/4	\$8.00
5.....	1 1/2 in.	4 to 4 1/2	\$9.65
6.....	1 3/4 in.	5 to 6	\$10.35



## REDUCE YOUR FUEL COSTS

### ASBESTOS AIR CELL PIPE COVERING



Fig. No. 1020

Alternate layers of plain and corrugated asbestos paper, forming successive layers of dead air cells, making a light, durable and efficient insulation.  $\frac{1}{2}$  inch or  $\frac{3}{4}$  inch thickness is recommended for low pressure and hot water pipes. Use 1 inch thickness for steam pipes with pressures up to 70 pounds. Furnished with canvas jackets and bands. Three foot sections, cut open lengthwise.

Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot
$\frac{1}{2}$	\$0.22	$1\frac{1}{2}$	\$0.33	$3\frac{1}{2}$	\$0.50	6	\$0.80
$\frac{3}{4}$	.24	2	.36	4	.60	7	1.00
1	.27	$2\frac{1}{2}$	.40	$4\frac{1}{2}$	.65	8	1.10
$1\frac{1}{4}$	.30	3	.45	5	.70	10	1.30

$\frac{1}{2}$  inch thick. **69% OFF** |  $\frac{3}{4}$  inch thick. **69% OFF** | 1 inch thick. **64% OFF**

### 85% MAGNESIA SECTIONAL PIPE COVERING



Fig. No. 1014

For higher pressure steam pipes. Made of 85 per cent pure carbonate of magnesia, and 15 per cent fibrous asbestos (sufficient to hold the magnesia intact). Furnished with canvas jackets and metal bands. Three foot sections, cut open lengthwise.

Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot
$\frac{1}{2}$	\$0.22	$1\frac{1}{2}$	\$0.33	$3\frac{1}{2}$	\$0.50	6	\$0.80
$\frac{3}{4}$	.24	2	.36	4	.60	7	1.00
1	.27	$2\frac{1}{2}$	.40	$4\frac{1}{2}$	.65	8	1.10
$1\frac{1}{4}$	.30	3	.45	5	.70	10	1.30

**DISCOUNT 45% OFF**

### WOOL FELT SECTIONAL PIPE COVERING

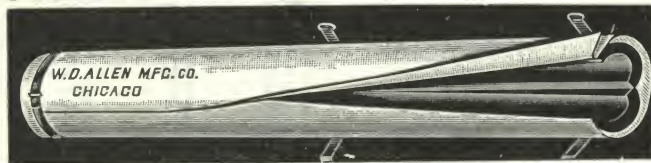


Fig. No. 1004

**FOR HOT WATER PIPES.** Made of high grade indented felt with asbestos lining, finished on the outside with asbestos and covered with strong muslin jacket. Furnished with metal bands.

$\frac{1}{2}$  or  $\frac{3}{4}$  inch thickness is recommended for hot or cold water.  $\frac{3}{4}$  inch thickness is recommended for low pressure steam. 1 inch thickness is recommended when an extra good non-conductor is desired. Three foot sections, cut open lengthwise.

Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot
$\frac{1}{2}$	\$0.22	$1\frac{1}{2}$	\$0.33	$3\frac{1}{2}$	\$0.50	6	\$0.80
$\frac{3}{4}$	.24	2	.36	4	.60	7	1.00
1	.27	$2\frac{1}{2}$	.40	$4\frac{1}{2}$	.65	8	1.10
$1\frac{1}{4}$	.30	3	.45	5	.70	10	1.30

$\frac{1}{2}$  inch thickness **62% OFF** |  $\frac{3}{4}$  inch thickness **58% OFF** | 1 inch thickness **51% OFF**

### FROST PROOF PIPE COVERING



Fig. No. 1007

For water and gas pipes; an efficient protection against freezing. The inner  $\frac{1}{2}$  inch is hair felt and the outer  $\frac{1}{2}$  inch the best quality wool felt. Has a finish of canvas, an inner lining of waterproof felt and furnished with metal bands.

Inside Diam. of Pipe, Inches	List per Foot	Inside Diam. of Pipe, Inches	List per Foot
$\frac{1}{2}$	\$0.22	$3\frac{1}{2}$	\$0.50
$\frac{3}{4}$	.24	4	.60
1	.27	$4\frac{1}{2}$	.65
$1\frac{1}{4}$	.30	5	.70
$1\frac{1}{2}$	.33	6	.80
2	.36	7	1.00
$2\frac{1}{2}$	.40	8	1.10
3	.45	10	1.30

**DISCOUNT 5% OFF**

### INSULATING RANGE BOILER JACKET



Cover, top, and three wide, easily fastened, gold lacquered bands packed in convenient, compact carton.



Fig. 4348

Made in a cellular form then built up between flat pieces of asbestos insulating felt. Moulded to cylindrical shape of correct size to fit around average boiler. Long lasting. Keeps water hot many hours longer than uninsulated boiler. Lacquered soft tone of ivory.

Size Inches	Capacity Gallons	List Each
12x36	18	\$7.00
12x48	24	\$8.00
14x48	32	\$8.50
16x48	42	\$9.50
12x60	30	\$9.00
14x60	40	\$10.00
16x60	52	\$11.00

**DISCOUNT 50% OFF**



## ASBESTOS PAPER

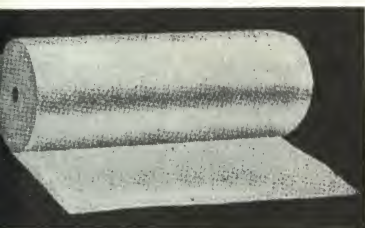


Fig. No. 1621

Composed of pure asbestos fibre, and is strictly fire proof. Used for the protection of wood partitions, walls and ceilings; for lining weather boards, floors, etc. Also for covering hot air pipes, and for making fire screens, etc.

Vt. Lbs.	Square Feet	Average Actual	Fractional Thickness
100	100	Will Cover	Inches
8	1250	.019	1/64
9	1111	.021	...
10	1000	.023	...
2	833	.026	...
4	714	.029	...
6	623	.032	1/32
8	500	.039	...
10	416	.046	3/64
2	312	.060	1/16

★ **NET 100 POUNDS**  
 100 Pound Rolls,  
 18 or 36 Inches Wide..\$6.15  
 50 Pound Rolls,  
 18 or 36 Inches Wide..\$6.15

★ **NET 100 POUNDS**  
 100 Pound Rolls,  
 36 Inches Wide .....\$8.00  
 50 Pound Rolls,  
 18 Inches Wide .....\$8.75

## COLD WATER FLOUR PASTE

Fig. No. 3341

For asbestos paper, pipe covering, paper hanging, etc. High quality. Produces a wet paste, gives a "slip" to paper, and sticks tight. Packed in 2, 5, 10, 50 or 100 pound bags.

★ **NET POUND**  
 to 99 Pounds .....\$0.10  
 100 Pounds or More .....\$0.09

## ROCK WOOL

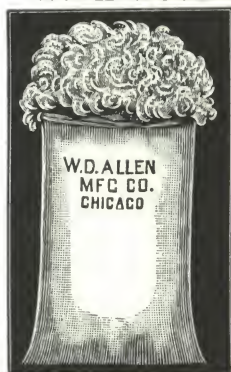


Fig. 4798

The fibres are of rock composition. They possess the permanency of glass and are fire-proof. The insulating fibres are blown from molten rock with high pressure steam causing a large percentage of entrapped air cells. Has high insulating efficiency for heat, cold or electricity. 35 pound bag contains approximately 4 cubic feet.

★ **NET BAG, \$1.65**

## ALLEN'S ASBESTOS FURNACE CEMENT



Fig. 4797

A superior material for mounting joints and seams in furnaces, ranges, etc., to make them smoke and gas tight. Can be used on hot or cold metal. Hardens quickly. Contains no oil. Acid proof. Odorless.

1 Pound Can	★ NET EACH, \$0.15
2 Pound Can	★ NET EACH, \$0.25
5 Pound Can	★ NET EACH, \$0.50
10 Pound Can	★ NET EACH, \$0.90
25 Pound Can	★ NET EACH, \$1.65

## RUTLAND ASBESTOS FURNACE CEMENT

Fig. 4349

Black asbestos. For setting up new hot-air furnaces and for repairing and resetting old ones. Sets quickly. Forms a hard cement. Impervious to gas. Makes a tight joint. Clings to the iron.

### ★ NET PER CAN

1 Pound Can	5 Pound Can	10 Pound Can
<b>15c</b>	<b>50c</b>	<b>90c</b>

## ASBESTOS MILLBOARD

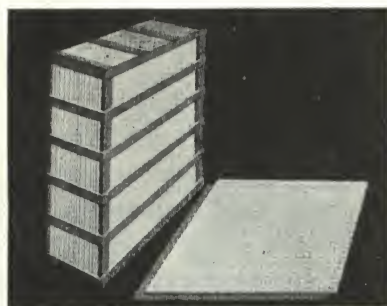


Fig. No. 1009

Sheet size 42x48 inches. Fire and acid proof. Valuable for packing joints in contact with fire, oil, etc. Also used for fire screens, partitions and ceilings, and for linings in ranges, stoves and ovens.

### Approximate Weight per Sheet

Thickness, Inches	Weight per Sheet, Lbs.	Sheets per Case
1/8	9.8	50
1/4	18.2	25
1/2	35.	13

In case lots.

★ **NET 100 POUNDS, \$6.24**

In less than case lots.

★ **NET 100 POUNDS, \$7.80**

In less than case lots.

Net extra for crating, .35

## ASBESTOS CEMENT



Fig. No. 1015

Composed of asbestos and other fire proofing and cementing materials forming a porous felting when applied. It is to be mixed with water to the consistency of mortar, and applied with a trowel to all heated surfaces, such as drums, boilers, heaters, breechings, etc. Furnished in 100 pound bags.

★ **NET BAG, \$1.95**

## ASBESTOS RETORT CEMENT

Fig. No. 3344

In general use in gas and chemical works for repairing broken clay and iron retorts and cementing pipes and flange joints; also for "setting up" and repairing broken joints, furnaces, ranges, heaters, etc. Fire-proof, water and acid proof, and when subjected to heat vitrifies without shrinking.

Cans	★ NET POUND
5 lbs. ....	\$0.15
10 lbs. ....	.12 1/2
25 lbs. ....	.12

## ASBESTOS AIR CELL BLOCKS AND BOARDS

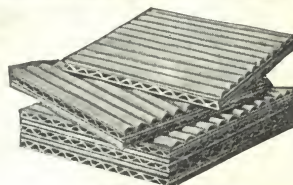


Fig. 4799

1 inch thickness cuts heat loss. Alternate layers of corrugated and flat asbestos paper. The corrugations are approximately 1/4 inch deep. A very light, inexpensive and firm sheet, having excellent insulating qualities. Adapted for insulating large surfaces, such as ovens, tanks, boilers, dry kilns, etc., where temperatures do not exceed 350° Fahrenheit. Also used for fireproofing by applying it to inflammable surfaces to screen it from excessive heat. Sheets, 36x36 inches; 6x18 inches; 6x36 inches; or special panels up to 8 feet long.

Thickness, Inches	List Square Foot	Thickness, Inches	List Square Foot
1/8	\$0.24	1 1/4	\$0.38
1/4	\$0.27	1 1/2	\$0.45
3/4	\$0.30	2	\$0.60

1/2 & 3/4 Inch .....**.67% OFF**  
 1 to 2 Inch .....**.62% OFF**



**RUTLAND PATCHING PLASTER**

Fig. 4350



Repairs all breaks in plastered walls. A fine white powder to be mixed with water to be ready for use. Sets slowly. Does not shrink away from the edges of the patch. Does not need to be shellacked before painting.

Package Pounds	★ NET EACH	★ NET DOZEN
2 1/2	\$0.18	\$1.80
5	\$0.30	\$3.00
15	\$0.60	\$6.00

**RUTLAND CONCRETE PATCHER**

Fig. 4351



For quick and easy repair of holes or cracks in cement or concrete work. Needs only to be mixed with water to be ready for use. Makes a smooth, neat, strong job.

Package Pounds	★ NET EACH	★ NET DOZEN
3 1/2	\$0.18	\$1.80
6 1/2	\$0.30	\$3.00

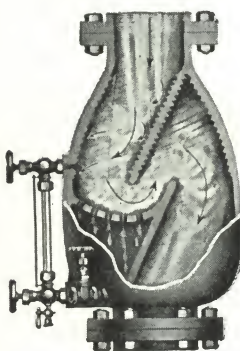
**WRIGHT-AUSTIN LIVE STEAM SEPARATORS**

Fig. No. 2352  
Vertical

Regularly made with extra heavy flanges for working pressures up to 250 pounds to the square inch. Flanges faced and drilled to 125 pound standard drilling can be supplied if especially ordered at the same prices as shown. Also made in cast steel for superheat, prices on request; specify: 1—pipe size; 2—working steam pressure; 3—degrees of superheat.

Price includes water gauge but not companion flanges, drain valve and nipple which will be furnished extra, only when ordered separately.

Fig. A—Vertical

Designed for installation in vertical steam lines just above engine throttle. Large internal areas with baffles set at the most efficient angle to furnish steam 99 per cent dry.

Fig. B—Horizontal

For use in horizontal lines as near as possible to the engine, where it will eliminate all moisture from the live steam current. Ideal for limited head or side room.



Fig. No. 2353  
Horizontal

**LIST PRICES EACH**

Pipe Size Inches	Flange Diameter Inches	Face to Face Inches	Drain Inches	Weight Pounds	LIST EACH
1-1/2	Screwed	12	1/2	45	\$27.50
2	Screwed	12	1/2	45	\$32.50
2-1/2	7-1/2	13	3/4	85	\$44.00
3	8-1/4	15-1/4	3/4	115	\$48.00
3-1/2	9	16-3/4	3/4	135	\$54.00
4	10	18	3/4	170	\$65.00
4-1/2	10-1/2	20	3/4	215	\$78.00
5	11	22-1/4	1	240	\$92.00
6	12-1/2	25-1/4	1	330	\$120.00
7	14	27-1/2	1-1/4	440	\$162.00
8	15	31-1/2	1-1/4	575	\$220.00
10	17-1/2	37	1-1/2	910	\$310.00
12	20-1/2	40-1/4	1-1/2	1080	\$370.00

DISCOUNT .....40% OFF

**LIST PRICES EACH**

Pipe Size Inches	Flange Diameter Inches	Face to Face Inches	Drain Inches	Weight Pounds	LIST EACH
1-1/2	Screwed	10-1/2	1/2	45	\$23.00
2	Screwed	10-1/2	1/2	45	\$26.00
2-1/2	7-1/2	13-1/4	3/4	115	\$34.00
3	8-1/4	15-1/4	3/4	125	\$41.00
3-1/2	9	16	3/4	165	\$51.00
4	10	18-1/4	3/4	215	\$63.00
4-1/2	10-1/2	19-1/4	3/4	265	\$74.00
5	11	20-3/4	1	285	\$81.00
6	12-1/2	24-1/4	1	435	\$122.00
7	14	27-1/4	1-1/4	600	\$160.00
8	15	30-1/4	1-1/4	835	\$216.00
10	17-1/2	31	1-1/2	1135	\$288.00
12	20-1/2	36	1-1/2	1580	\$400.00
14	23	39	2	1625	\$470.00

DISCOUNT .....30% OFF

**WRIGHT-AUSTIN OIL SEPARATOR**

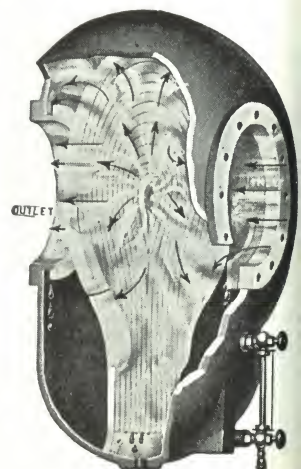
Fig. 2354

Fig. 2354S—Horizontal

For use on exhaust steam lines for working pressures up to 40 lbs. Water gauges on all sizes except 1 1/2 and 2 inches. Companion flanges, drain valve and nipple furnished extra, only when separately ordered.

Pipe Size, Inches	Diameter Flanges, Inches	Face to Face, Inches	Drain, Inches	List Each
1 1/2	Screwed	9 3/8	3/4	\$24.00
2	Screwed	10	3/4	27.00
2 1/2	7	10 1/4	1	42.00
3	7 1/2	10 1/2	1	48.00
3 1/2	8 1/2	11	1	54.00
4	9	12	1	72.00
4 1/2	9 1/4	13	1 1/4	80.00
5	10	15	1 1/4	100.00
6	11	17	1 1/2	122.00
7	12 1/2	17 1/2	1 1/2	156.00
8	13 1/2	18	1 1/2	170.00
10	16	19	1 1/2	228.00
12	19	20	1 1/2	300.00

DISCOUNT .....30% OFF





## McDANIEL INTERMITTENT STEAM TRAP

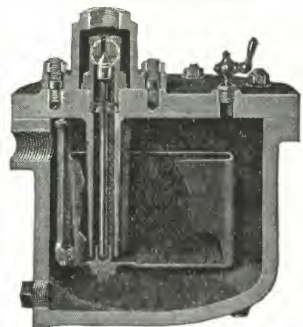


Fig. No. 3955

Cannot lose steam when discharging condensation. Saves steam. Heavy flanges prevent gasket from blowing out. Discharges only when float is filled with condensation. Quick accessibility to all working parts. Instantaneous action. For any matter can be blown out without removing the bonnet. Pressure of the trap can be changed instantly by replacing with a different pressure seat. No. 22 for pressures up to 100 pounds, Nos. 23, 24 and 25 for pressures up to 250 pounds.

Size of Inlet and Outlet Pipe	Drainage Linear Feet of 1 Inch Pipe	Drainage Square Feet of Heating Surface	LIST EACH
Standard	7,500	2,500	\$18.00
1/2 & 3/4	14,400	4,800	28.00
1 1/4	22,200	7,400	40.00
1 1/2	36,000	12,000	55.00

### DISCOUNTS

No. 22 ..... 15% OFF  
No. 23 to 25 ..... 20% OFF

When not otherwise ordered, Reg. Pressure traps will be sent which are made to work at 1 to 100 pounds pressure. Low Pressure traps will be sent at the same price specified. Extra heavy traps for pressure 100 to 150 pounds made to order at additional cost.

## KLIPFEL IMPROVED STEAM TRAP

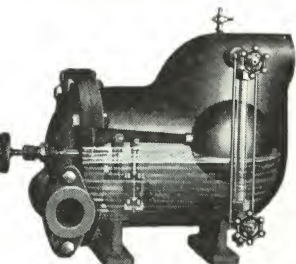


Fig. 1617

Continuous discharge. Automatic-relieves all condensation from low pressure heating systems without loss of steam. Bronze internal working parts. Seamless copper float. Steam working pressures up to 100 pounds. SPECIFY pipe size, maximum and minimum steam pressure, maximum amount of water in discharge each hour to be drained, or square feet of radiation to be protected.

Discharge Linear Feet of 1-Inch Pipe	Discharge Square Feet of Radiating Surface	List Each Water Gauge Extra
1,500	500	\$38.50
3,000	1,000	\$49.50
6,500	2,175	\$66.00
15,000	5,000	\$83.00
20,000	6,675	\$110.00
30,000	10,000	\$165.00
40,000	13,350	\$220.00
60,000	20,000	\$275.00

DISCOUNT ..... 30% OFF

## McDANIEL IMPROVED STEAM TRAP

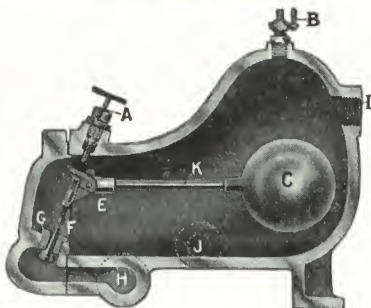


Fig. No. 1615

Combines all the desirable features of the McDANIEL Standard trap, which is so well known. It is made more compact, easier to repair. It has water seal over the valve, continuous discharge, valve stem and seat of phosphor bronze. All the working parts are connected to the bonnet, and are all removed with it, making it most convenient to repair, without disturbing the pipes. Tapped for gauge, but not furnished. Heating surface in square feet is equivalent to 1/2 of the figures given in the table below for drainage in linear feet. No. 12 is for pressures up to 200 pounds. No. 13 to 18 inclusive is for pressures up to 250 pounds.

In ordering a trap for pressures over 150 pounds SPECIFY THE MAXIMUM STEAM PRESSURE under which the trap is to operate.

Trap No.	Size of Inlet and Outlet Pipe	Drainage Linear Feet of 1-inch Pipe	Drainage Square Feet of Heating Surfaces	LIST EACH
12	1/2 & 3/4	9,000	3,000	\$ 18.00
13	1	21,000	7,000	28.00
14	1 1/4	48,000	16,000	40.00
15	1 1/2	96,000	32,000	55.00
16	2	180,000	60,000	80.00
17	2 1/2	240,000	80,000	100.00
18	3	300,000	100,000	125.00

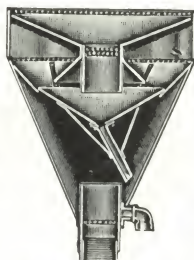
### DISCOUNTS

No. 12 ..... 15% OFF  
Nos. 13 to 18 ..... 20% OFF

## STANDARD EXHAUST PIPE HEAD



Fig. 1908



Sectional View

Heavy galvanized body, riveted. Brass hand hole for cleaning. Screw coupling on 1 inch to 4 1/2 inch. Standard flange on 5 inch and larger.

Exhaust Pipe, Inches	Drain Pipe, Inches	LIST EACH
1 or 1 1/2	3/4	\$ 20.00
2 or 2 1/2	1	25.00
3 or 3 1/2	1 1/4	30.00
4 or 4 1/2	1 1/2	40.00
5	1 3/4	50.00
6	2	60.00
7	2 1/4	75.00
8	2 1/2	90.00
9	2 3/4	105.00
10	3	125.00
12	3 1/2	150.00

DISCOUNT ..... 65% OFF

## McDANIEL INTERMITTENT INVERTED BUCKET STEAM TRAP

CANNOT LOSE STEAM WHEN DISCHARGING CONDENSATION AND AIR



Fig. 4477

Simple. Small number of working parts. Inverted float and stem are the only moving parts. The float is free to turn so that the valve will not seat in the same position after each operation, prolonging the life of the seat and stem. Requires no air or vent valve, as the trap will automatically discharge the air from the system or apparatus. Stem and seat are made of different metals. The stem will automatically compensate for the change of

seat. Heavy flanges withstand water hammer shocks. Bolts are closely spaced to prevent the gasket from blowing out. To change trap to suit your operating pressure a seat with proper orifice will be provided; SPECIFY STEAM PRESSURE AT TRAP.

Size No.	Capacities in Pounds of Water—			Maximum Working Pressure
	At 150 Pounds	At 100 Pounds	At 30 Pounds	Pounds
30	450	1000	100	
31	950	1125	2000	150
32	1830	2325	4500	250
33	2800	3700	7200	250

Size No.	Size Inlet and Outlet, Inches	Drainage Linear Feet of 1 Inch Pipe	Drainage Square Feet of Heating Surface	LIST EACH
30	1/2	4500	1500	\$10.00
31	3/4	9000	3000	\$14.00
32	1	21000	7000	\$25.00
33	1 1/4	33000	11000	\$40.00

DISCOUNT ..... 25% OFF

## SEAMLESS COPPER BALL FLOATS

With Brass Spud Connection



Fig. 1025

SPECIFY THE HIGHEST PRESSURE FLOAT IS TO OPERATE UNDER.

For hot water or for steam pressure service. Made of two pieces of copper, with soldered seam, and heavy electro copper plated.

### ★ NET PRICES, EACH

Size In.	Spud I.P.T.	Working Pressure, Pounds			
		25	50	100	150
3	1/8	\$1.00	\$1.30	\$1.50	\$1.80
3 1/2	1/8	\$1.40	\$1.70	\$2.10	\$2.60
4	1/8	\$1.70	\$2.00	\$2.50	\$3.00
4 1/2	1/8	\$2.20	\$2.50	\$2.90	\$3.50
5	1/4	\$2.50	\$2.80	\$3.20	\$3.80
5 1/2	1/4	\$3.00	\$3.50	\$4.00	\$5.00
6	1/4	\$3.50	\$4.00	\$4.60	\$6.00
6 1/2	1/4	\$4.20	\$4.80	\$6.00	\$7.20
7	3/8	\$4.25	\$5.50	\$7.00	\$8.00
8	3/8	\$4.50	\$5.75	\$7.25	\$8.25
10	1/2	\$7.50	\$9.75	\$12.00	\$16.50
12	1/2	\$12.35	\$18.00	\$22.50	\$27.00



## Spiral Riveted Steel Pressure Pipe

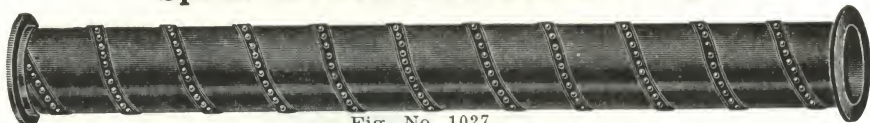


Fig. No. 1027

Spiral Riveted Pipe has been in use for many years and its construction and superiority are now familiar to most engineers and users of pipe. Its great strength, durability and economy are worthy of consideration.

Furnished Asphalted any length up to 30 foot and galvanized up to 20 foot.

Asphalted is used for Water Supply Lines, Pumping Mains, Hydraulic Mining, Hydro Electric Supply, Dis-

charge Pipe, Dredging, Etc. Galvanized is used for Exhaust, Suction Pipe, Condensers, Work, Paper and Pulp, Brine Circulation, Compressed Air, Vacuum Pipe, Etc.

PRICES ..... ON APPLICATION



### WATER PIPE CLAMPS

Fig. No. 1096

Malleable Iron  
With Wrought Strap  
Larger sizes, prices on application.



### STEAM PIPE SADDLES

Fig. 1097

Malleable iron with wrought straps, for wrought pipe

No.	O. D. Circle, In.	W. I. Pipe, In.	O. D. Casing, In.	C. I. Pipe, In.	Tapped for Pipe, In.	List Each
0	1 1/2	1 1/2	2	2	1/2 and 3/4	\$1.00
1	2 1/2	2	2 1/2	2 1/2	1/2 to 1	1.00
2	2 1/2	2 1/2	2 3/4 and 3	2	1/2 to 1 1/4	1.25
3	3 1/2	3	3 1/2	3	1/2 to 1	1.25
4	3 1/2	3	3 1/2	3	1 1/4 to 2	1.50
5	4	3 1/2	4	3	1/2 to 1	1.50
6	4	3 1/2	4	3	1 1/4 to 2	1.75
7	4 1/2	4	4 1/2	4	1/2 to 1 1/2	1.75
8	4 1/2	4	4 1/2	4	2	2.00
9	4 1/2	4	4 1/2	4	2 1/2 and 3	4.00
10	5	4 1/2	5	4	3/4 to 1 1/2	1.80
11	5	4 1/2	5	4	2	2.15
12	5	4 1/2	5	4	2 1/2 and 3	4.00
13	5 3/8	5	5 1/2	5	3/4 to 1 1/2	1.80
14	5 3/8	5	5 1/2	5	2	2.15
15	5 3/8	5	5 1/2	5	2 1/2 and 3	4.00
16	6	6	6	5	1/2 to 1 1/2	2.00
17	6	6	6	5	2	2.40
18	6	6	6	5	2 1/2 and 3	4.50

DISCOUNT ..... 58% OFF



### WIRE PIPE HOOKS

Fig. 4394

Fits perfectly. Nearly encircles the pipe keeping it in position. Head for driving spike.

Pipe Size	4 Inch	6 Inch	8 Inch	10 Inch
Inch	List	List	List	List
1/2	100	100	100	100
3/4	\$1.20	\$1.50	\$1.90	....
1	1.30	1.70	2.20	....
1 1/4	1.50	2.00	2.40	\$2.80
1 1/2	1.90	2.50	3.00	3.50
2	....	2.70	3.50	4.00
2 1/2	....	2.90	4.00	4.50

DISCOUNT ..... 40% OFF

### HANGER RING AND BOLT

Pipe Size	Width	List
Inch	Inch	
1/2	7/8	\$ 8.25
3/4	7/8	8.75
1	7/8	9.50
1 1/4	7/8	10.00
1 1/2	7/8	10.50
2	1	12.50
2 1/2	1	15.75
3	1 1/8	18.50
3 1/2	1 1/8	22.75
4	1 1/8	27.25
5	1 1/8	39.50

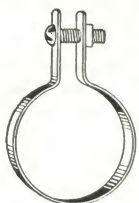


Fig. No. 2338

DISCOUNT ..... 70% OFF

### EXTENSION BARS



Fig. 1946

Perforated hanger iron in 5 foot lengths.

Width Gauge		Pipe	List
No.	Inches	No.	Size
0	3/4	16	1/2 to 1 1/2
1	7/8	16	1/2 to 1 1/2
2	1	14	2 to 3
3	1 1/8	12	3 1/2 to 6
			100 Feet
			\$4.50
			5.00
			6.00
			9.50

DISCOUNT ..... 70% OFF

### FLATTENED END LAG SCREWS WITH BOLTS

For hanging pipes, signs, etc. Operates with any standard shield.

Size	Length	List
Inch	Inch	
1/4	3	\$ 8.00
5/16	3 1/2	10.00
3/8	4	12.00
1/2	5	14.00

DISCOUNT ..... 60% OFF

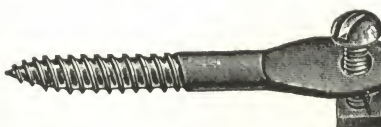


Fig. No. 3524

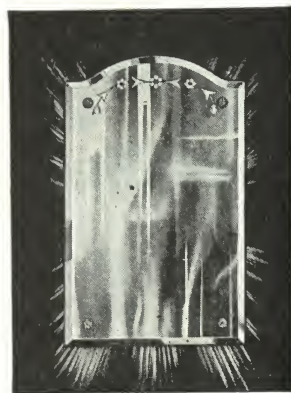
### GALVANIZED PIPE STRAPS

Fig. 996

Furnished the following sizes: 1/4, 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2 inches.

★ NET POUND, \$0.

### DE LUXE VENETIAN BATHROOM CABINET



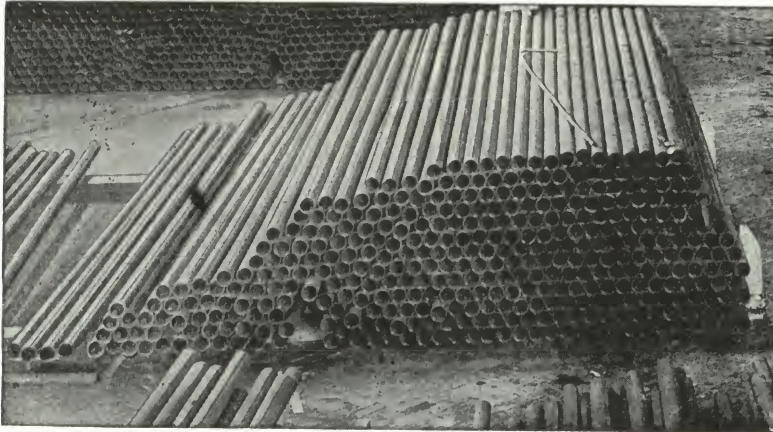
The box is made of annealed sheets, rigidly welded. Large plain glass mirror covers the cabinet. Adjustable plate glass shelves.

No.	Size	Opening	No.	Size
1624	16x24	13x19x3 1/2	2	\$11
1826	18x26	15x21x3 1/2	2	\$22
1830	18x30	15x24x4 1/4	3	\$22
2032	20x32	17x26x4 1/4	3	\$33

DISCOUNT ..... 50% OFF



## STANDARD BOILER TUBES



Boiler Tubes are measured on the OUTSIDE

Outside diameter, inches.....	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/2	5	6	7	8	9	10	11	12
Thickness, inches.....	.095	.095	.095	.109	.109	.109	.120	.120	.120	.134	.134	.148	.165	.165	.165	.180	.203	.220	.229
Weight, nearest B.G.M. W. G.....	13	13	13	12	12	12	11	11	11	10	10	9	8	8	8	7	6	5	4 1/2
Weight per foot.....	1.679	1.932	2.186	2.783	3.074	3.365	4.011	4.331	4.652	5.532	6.248	7.669	10.282	12.044	13.807	16.955	21.240	25.329	28.788

For cutting tubes to specified lengths (other than regular), an extra charge will be made for labor and also waste of material. Tubes kept in stock, 10, 12, 14, 16, 18, 20 foot lengths.

## PRICES ON APPLICATION

## SPECIAL PIPE CUT TO ORDER

We are prepared to furnish pipe cut to order. In ordering Cut Pipe always send sketch. In laying out work of this kind great care should be taken in making sketches. All measurements should be given center to center, as shown in diagrams below. It is also necessary to know for what purpose the pipe is to be used and pressure required to stand.

## PIPE TRADE CUSTOMS

## Standard Pipe

This term is used to indicate the regular pipe of the market, and such orders are usually filled by the shipments of soft wrought steel pipe.

## Extra Strong Pipe

This term designates a heavy pipe, from 8 to 12 inches only, made of either puddled wrought iron or soft steel. Unless directed to the contrary, we usually ship soft wrought steel pipe. Extra Strong Pipe is always shipped with plain ends and without couplings, unless we receive instructions to thread and couple, for which there is an extra charge.

This term, when applied to pipe larger than 8 inch, is somewhat indefinite, as 9, 10 and 12 inch are made both 3/8 and 1/2 inch thick. Stock sizes, 1/2 inch thick, and is always furnished on open orders.

## Double Extra Strong Pipe

This pipe is approximately twice as heavy as Extra Strong, and is made from 1/2 inch in both wrought iron and steel. It is difficult, however, to find any quantity of wrought iron, and our stock is usually wrought steel. This pipe is shipped with plain ends, without couplings, unless receive orders to thread and couple, for which there is an extra charge.

## In General

Every piece of pipe, tubing, casing, boiler tube, line or drive pipe is carefully tested, and it is impossible to always detect imperfections. The only guarantee that is given is to replace such goods as prove defective. Under no circumstances are we responsible for any damages beyond the price of goods. No charges for labor or expense required to repair defective goods, or occasioned by them will be levied. If the goods are defective, the measure of damages is the price of the defective piece.

DIAGRAM SHOWING SCREWED VALVE AND FITTINGS

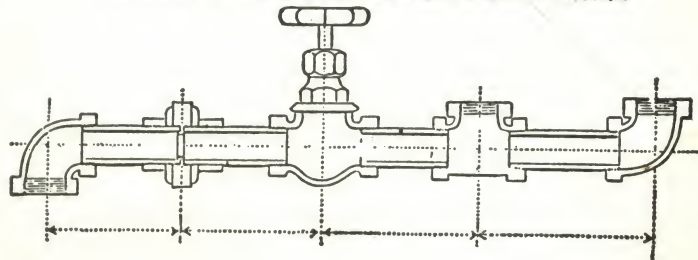
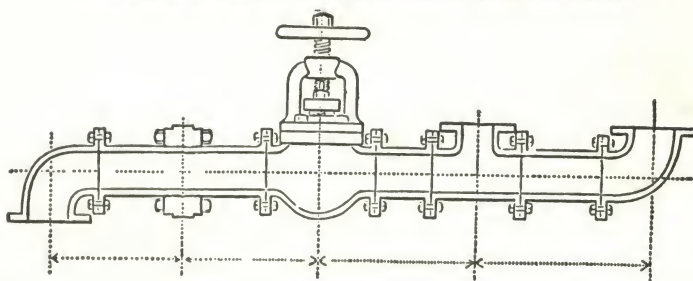


DIAGRAM SHOWING FLANGED VALVE AND FITTINGS





# STANDARD PIPE FOR GAS, STEAM AND WATER

List Adopted by Manufacturers, January 1, 1913

Nominal size, inside diameter, inches.....	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Black, } List per foot.....	\$0.05 $\frac{1}{2}$	\$0.06	\$0.06	\$0.08 $\frac{1}{2}$	\$0.11 $\frac{1}{2}$	\$0.17	\$0.23	\$0.27 $\frac{1}{2}$
Galvanized, }								
For cutting extra threads.....	.05	.05	.05	.05	.05	.06	.07	.08
Weight per foot { Plain ends.....	.244	.424	.567	.850	1.130	1.678	2.272	2.717
Threads and Couplings.....	.245	.425	.568	.852	1.134	1.684	2.281	2.731
Thickness, inch.....	.068	.088	.091	.109	.113	.134	.140	.145
Threads per inch of screw.....	27	18	18	14	14	11 $\frac{1}{2}$	11 $\frac{1}{2}$	11 $\frac{1}{2}$
Nominal size, inside diameter, inches.....	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	6
Black, } List per foot.....	\$0.37	\$0.58 $\frac{1}{2}$	\$0.76 $\frac{1}{2}$	\$0.92	\$1.09	\$1.27	\$1.48	\$1.92
Galvanized, }								
For cutting extra threads.....	.10	.15	.20	.25	.35	.45	.55	.70
Weight per foot { Plain ends.....	3.652	5.739	7.575	9.109	10.790	12.538	14.617	18.974
Threads and Couplings.....	3.678	5.819	7.616	9.202	10.889	12.642	14.810	19.155
Thickness, inch.....	.154	.204	.217	.226	.237	.246	.259	.280
Threads per inch of screw.....	11 $\frac{1}{2}$	8	8	8	8	8	8	8
Nominal size, inside diameter, inches.....	7		8		9		10	
Black, list per foot.....	\$2.38		\$2.88		\$3.45		\$4.12	
For cutting extra threads.....	.85		1.00		1.25		1.50	
Weight per foot { Plain ends.....	23.544		28.554		33.907		40.483	
Threads and Couplings.....	23.769		28.809		34.188		41.132	
Thickness, inch.....	.301		.322		.344		.366	
Threads per inch of screw.....	8		8		8		8	

## EXTRA STRONG

Size, inches.....	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
Black, list per foot.....	\$0.12	\$0.07 $\frac{1}{2}$	\$0.07 $\frac{1}{2}$	\$0.11	\$0.15	\$0.22	\$0.30
Actual outside diameter, inches.....	.405	.54	.675	.84	1.05	1.315	1.66
Approximate inside diameter, inches.....	.205	.294	.421	.542	.736	.951	1.272
Thickness, inch.....	.100	.123	.127	.149	.157	.182	.194
Weight per foot, plain ends.....	.314	.535	.738	1.087	1.473	2.171	2.996
Size, inches.....	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5
Black, list per foot.....	\$0.36 $\frac{1}{2}$	\$0.50 $\frac{1}{2}$	\$0.77	\$1.03	\$1.25	\$1.50	\$2.08
Actual outside diameter, inches.....	1.90	2.375	2.875	3.50	4.00	4.50	5.563
Approximate inside diameter, inches.....	1.494	1.933	2.315	2.892	3.358	3.818	4.813
Thickness, inch.....	.203	.221	.280	.304	.321	.341	.375
Weight per foot, plain ends.....	3.631	5.022	7.661	10.252	12.505	14.983	20.778

## DOUBLE EXTRA STRONG

Size, inches.....	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black, list per foot.....	\$0.32	\$0.35	\$0.37	\$0.52 $\frac{1}{2}$	\$0.65	\$0.91
Actual outside diameter, inches.....	.84	1.05	1.315	1.66	1.90	2.375
Approximate inside diameter, inches.....	.244	.422	.587	.885	1.088	1.491
Thickness, inch.....	.298	.314	.364	.388	.406	.442
Weight per foot, plain ends.....	1.714	2.440	3.659	5.214	6.408	9.029
Size, inches.....	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5	6
Black, list per foot.....	\$1.37	\$1.86	\$2.30	\$2.76	\$3.86	\$5.32
Actual outside diameter, inches.....	2.875	3.50	4.00	4.50	5.563	6.625
Approximate inside diameter, inches.....	1.755	2.284	2.716	3.136	4.063	4.875
Thickness, inch.....	.560	.608	.642	.682	.75	.875
Weight per foot, plain ends.....	13.695	18.583	22.850	27.541	38.552	53.160

Extra strong and double extra strong pipe is always shipped without threads or couplings, unless otherwise specified.

Threads and couplings on extra strong and double extra strong pipe are always charged extra. Quotations will not cover them unless they are clearly specified in requests for prices.

For pipe cut to specified lengths, an extra charge will be made to cover cost.

**Notice.**—We carry in stock 2, 2 $\frac{1}{2}$  and 3-inch tubular well pipe, black or galvanized, reamed and drifted especially for tubular well work. The list is the same as standard pipe.

## Discount on Application

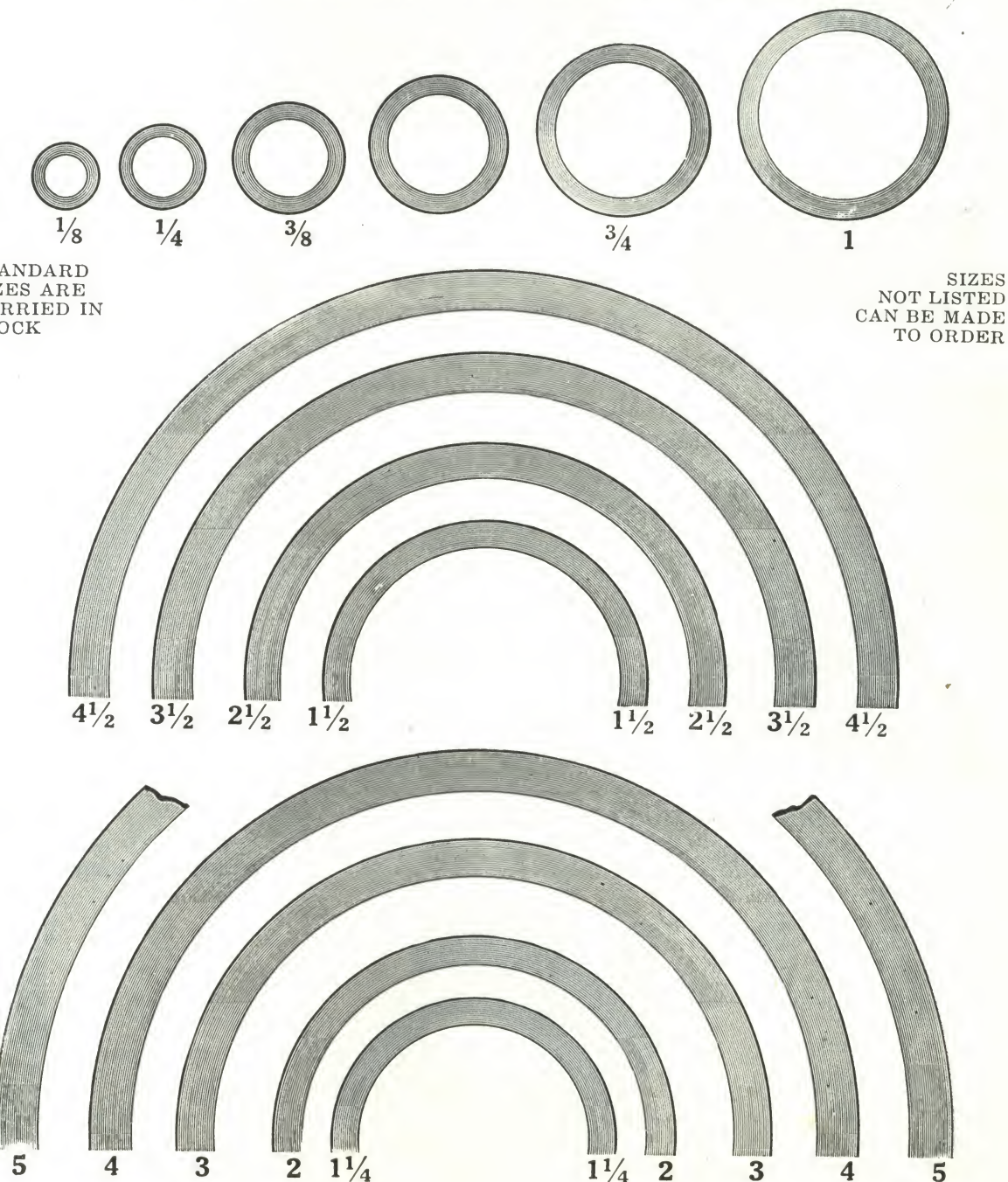


# STANDARD PIPE

★NET PRICES 100 FEET F. O. B. CARS CHICAGO  
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

—BLACK—		—GALVANIZED—		Size Inches	—BLACK—		—GALVANIZED—	
Random Lengths	Cut to Order	Random Lengths	Cut to Order		Random Lengths	Cut to Order	Random Lengths	Cut to Order
\$3.47	\$3.67	\$4.91	\$5.12	1 1/4	\$10.92	\$11.78	\$13.51	\$14.37
\$3.56	\$3.78	\$4.80	\$5.02	1 1/2	\$13.06	\$14.09	\$16.15	\$17.18
\$3.56	\$3.78	\$4.80	\$5.02	2	\$17.57	\$18.96	\$21.73	\$23.12
\$4.56	\$4.88	\$5.68	\$6.00	2 1/2	\$27.78	\$29.98	\$34.36	\$36.56
\$5.75	\$6.18	\$7.11	\$7.54	3	\$36.33	\$39.20	\$44.94	\$47.81
\$8.07	\$8.71	\$9.98	\$10.62	4	\$55.18	\$59.26	\$68.12	\$72.21

## STANDARD SIZES OF WROUGHT PIPE





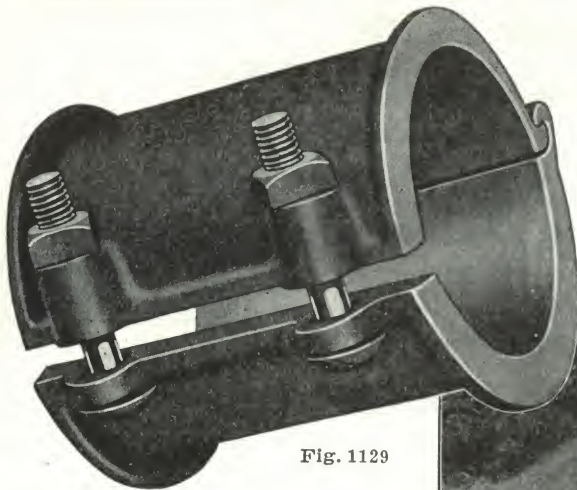


Fig. 1129

A triple economy, it saves: 1—The cost of a new piece of pipe. 2—The steam fitting job of tearing out the old pipe and putting in the new. 3—The expense of shutting down while work is being done—often thousands of dollars.

## SKINNER EMERGENCY PIPE CLAMPS

For stopping leaks in pipe lines, instantly and permanently. Made of malleable iron, hinged, with tightening bolts. Makes a permanent repair strong enough for any work.

Clamps are made with heavy reinforcing ribs. Each clamp painted and furnished complete with packing.

Pipe Inch	Length Inch	Lo Ea
1/2	3 1/4	\$0
3/4	3 1/4	
1	3 1/2	
1 1/4	3 3/4	
1 1/2	4	
2	4 1/2	
2 1/2	5	
3	5 1/2	
3 1/2	6	
4		



Pipe Inch	Length Inch	No. Bolts	Lo Ea
4 1/2	6 1/2	2	\$ 6
5	7	3	7
6	8	3	9
7	9	3	10
8	9 1/2	3	12
9	10	3	13
10	11	4	15
12	12	4	18

PRICE. . LIST NET

## SKINNER PIPE LINE CLAMP



Fig. 3789

Extra long, to take care of long splits, or very bad corrosion, etc.

PRICE . . . . . LIST NET

Size Pipe	Length Inches	Weight Pounds	List Each
1	8	3	\$1.50
1 1/4	8 1/4	4	2.00
1 1/2	9	5	2.50
2	10	7 1/2	3.00
2 1/2	10 1/2	8	3.75
3	11	10 1/2	4.70
4	12	13 1/2	6.50
6	15	28	13.50

## SKINNER SADDLE TEE

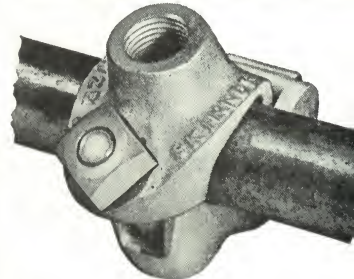


Fig. 4471

For making both gas and water connections. Combines tee, union and nipple in one fitting. Attaches to pipe, and drill hole; no pipe cutting nor threading is necessary. THE SAVING OVER CUTTING TEES IS TREMENDOUS. Extra heavy to give a wide margin of safety. Having a broad friction contact, it will not jar loose. Made of malleable iron, cadmium plated. For outlets use any standard tap to one size smaller than the saddle tee itself.

FOR INSTALLING: Gas fire refrigerators, hot plates, gas heater, fireplace heaters, hot water heaters, stoves, ranges, water softeners, extension pipes, humidifiers, gauge feed lines, etc.

Size, Inches	★ NET EACH
1/2	\$0.
3/4	\$0.
1	\$0.
1 1/4	\$0.
1 1/2	\$0.
2	\$1.

## SKINNER PIPE JOINT CLAMP

For repairing leaks at joints in lines for steam, hot or cold water, gas, oil, air, ammonia or brine. For temporary or permanent use. Easily repacked. Made of malleable iron, with bronze thrust screws. Painted to resist rust. Only a wrench needed to apply.

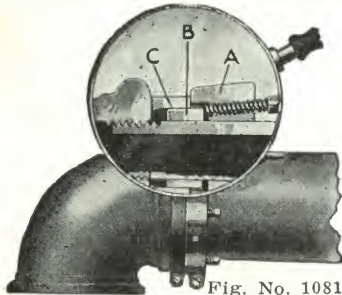


Fig. No. 1081

LIST PRICES EACH			
For Pipe	List Ea.	For Pipe	List Ea.
1/2 in. I. D.	\$1.50	4 in. I. D.	\$6.00
3/4 in. I. D.	1.50	4 1/2 in. I. D.	6.75
1 in. I. D.	1.50	5 in. I. D.	7.50
1 1/4 in. I. D.	1.90	6 in. I. D.	9.00
1 1/2 in. I. D.	2.25	7 in. I. D.	10.50
2 in. I. D.	3.00	8 in. I. D.	13.00
2 1/2 in. I. D.	3.75	9 in. I. D.	15.75
3 in. I. D.	4.50	10 in. I. D.	18.75
3 1/2 in. I. D.	5.25	12 in. I. D.	22.50
For Pipe List Each			
14 in. O. D.	\$31.50		
15 in. O. D.	33.75		
16 in. O. D.	36.00		
18 in. O. D.	40.50		

PRICE . . . . . LIST NET

## SKINNER SERVICE PIPE SADDLE

For water, gas and oil connections. Malleable iron. Simple and extra strong. Only one bolt to tighten. Does not tilt while applying. Lead gasket is riveted in place. Supports the pipe. Quickly and easily put on.

\* Specify exact size saddles are to be tapped.

Size Inches	*Tapped Inches	Weight Pounds	List Each
1 1/4	1/2 to 1	2	\$0.90
1 1/2	1/2 to 1	2 1/2	.95
2	1/2 to 1 1/4	3 1/2	1.00
2 1/2	1/2 to 1 1/4	3 3/4	1.35
3	1/2 to 1 1/4	5	1.50
3	1 1/2, 2	5 1/2	1.75
3 C. I.	1/2 to 1 1/4	5 1/2	2.20
3 C. I.	1 1/2, 2	6	2.35
4	1/2 to 1 1/4	6 1/2	2.00
4	1 1/2, 2	6 1/2	2.50
4 C. I.	1/2 to 1 1/4	6 3/4	3.00
4 C. I.	1 1/2, 2	7	3.25
6	1/2 to 2	13 1/2	5.00
6 1/2 CAS	1/2 to 2	15	6.00
8	1/2 to 2	24	7.00

PRICE. . . . . LIST NET

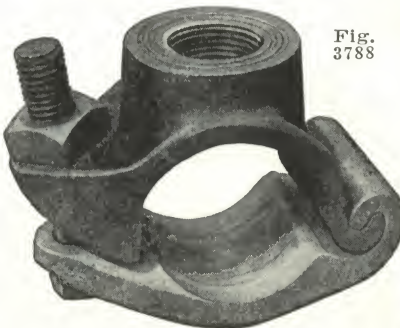


Fig. 3788

## DRILLING DEVICE

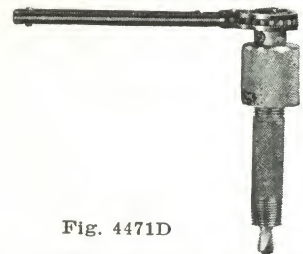


Fig. 4471D

For Saddle Tees. Ratchet head. Ball thrust bearing. With Drill. Anchoring tube fits into saddle tee. For Outlets. ★ NET EACH. Size 3/8 1/2 Inch \$4.00. 9/16 3/4 Inch \$8.00.





Fig. 2349, Close

# PIPE NIPPLES

## Wrought Black and Galvanized



Fig. 2350, Shoulder

NEW STANDARD LIST PRICES EFFECTIVE SEPTEMBER 1, 1933

STANDARD BLACK NIPPLES										RIGHT HAND					LIST EACH						
Diam.—	CLOSE—	—SHORT—	LONG, Length Inches																		
Inch	Inch	Inch	Each	Each	2	2½	3	3½	4	4½	5	5½	6	7	8	9	10	11	12		
⅛	¾	.05	1½	.06	.07	.08	.08	.09	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.20		
¼	⅞	.05	1½	.06	.07	.08	.08	.09	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.20		
⅜	1	.05	1½	.06	.07	.08	.08	.09	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.20		
½	1½	.06	1½	.07	.08	.09	.09	.10	.10	.11	.12	.13	.14	.15	.17	.19	.21	.23	.25		
¾	1¾	.08	2	.09	...	.10	.11	.12	.13	.14	.15	.16	.17	.19	.21	.23	.25	.27	.29		
1	1½	.10	2	.11	...	.13	.14	.15	.16	.17	.18	.19	.20	.24	.27	.30	.32	.35	.38		
1¼	1¾	.13	2½	.15	...	...	.16	.18	.20	.22	.24	.26	.28	.32	.36	.40	.44	.48	.52		
1½	1¾	.16	2½	.18	...	...	.20	.22	.25	.27	.29	.31	.34	.38	.43	.47	.52	.56	.60		
2	2	.21	2½	.24	...	...	.28	.31	.34	.37	.40	.44	.48	.53	.59	.66	.78	.80	.87		
2½	2½	.39	3	.45	...	...	...	.58	.63	.68	.73	.78	.85	.94	1.03	1.12	1.22	1.31	1.40		
3	2¾	.54	3	.59	...	...	...	.65	.73	.81	.89	.96	1.04	1.19	1.34	1.50	1.65	1.80	1.95		
4	2¾	.92	4	1.12	...	...	...	...	...	1.28	1.38	1.48	1.60	1.80	2.00	2.20	2.40	2.60	2.80		
4½	2¾	1.35	4	1.60	...	...	...	...	...	1.75	1.90	2.10	2.25	2.50	2.75	3.00	3.25	3.50	3.75		
5	3	1.60	4½	2.00	...	...	...	...	...	...	2.05	2.17	2.29	2.61	2.91	3.15	3.39	3.64	3.88		
6	3½	2.00	4½	2.45	...	...	...	...	...	...	2.58	2.73	2.90	3.36	3.68	4.08	4.31	4.60	4.94		
8	...	4.30	...	4.87	...	...	...	...	...	...	...	5.00	5.44	5.71	6.10	6.48	6.85	7.25	7.65		
10	...	5.88	...	6.50	...	...	...	...	...	...	...	...	...	...	8.00	8.55	9.10	9.65	10.20		
12	...	7.40	...	8.70	...	...	...	...	...	...	...	...	...	...	10.00	10.90	11.80	12.70	13.60		

For list of black nipples made from extra strong pipe, double the list of standard black nipples.  
 For list of black nipples made from double extra strong pipe, multiply the list of standard black nipples by four.  
 For list of lengths not listed (under 12 inch) use the list of the next longer length.  
 For list of lengths 13 to 24 inch inclusive compute price by combining list of shorter lengths.

STANDARD GALVANIZED NIPPLES										RIGHT HAND					LIST EACH					
Diam.—	CLOSE—	—SHORT—								LONG,	Length	Inches								
Inch	Inch	Inch	Each	Each	2	2½	3	3½	4	4½	5	5½	6	7	8	9	10	11	12	
⅛	¾	.07	1½	.08	.10	.11	.12	.13	.14	.15	.16	.17	.19	.22	.25	.28	.30	.33	.36	
¼	⅞	.07	1½	.08	.10	.11	.12	.13	.14	.15	.16	.17	.19	.22	.25	.28	.30	.33	.36	
⅜	1	.07	1½	.08	.10	.11	.12	.13	.14	.15	.16	.17	.19	.22	.25	.28	.30	.33	.36	
½	1⅛	.08	1½	.09	.11	.12	.13	.14	.15	.16	.17	.18	.20	.23	.26	.29	.32	.35	.38	
¾	1⅜	.10	2	.12	...	.13	.14	.16	.18	.20	.22	.24	.26	.29	.32	.35	.39	.42	.45	
	1½	.13	2	.15	...	.18	.20	.22	.24	.26	.28	.30	.34	.38	.42	.46	.50	.54	.58	
1	1⅝	.17	2½	.22	...	...	.26	.28	.30	.34	.37	.40	.44	.48	.56	.62	.68	.74	.80	
1½	1¾	.22	2½	.26	...	...	.30	.34	.38	.42	.45	.48	.52	.58	.65	.73	.80	.87	.94	
2		.30	2½	.35	...	...	.40	.45	.50	.55	.60	.65	.70	.79	.88	.97	1.06	1.15	1.24	
2½	2½	.60	3	.66	...	...	...	.75	.83	.90	.98	1.06	1.14	1.28	1.44	1.60	1.76	1.92	2.08	
3	2⅝	.80	3	.87	...	...	...	1.01	1.10	1.20	1.30	1.40	1.50	1.70	1.90	2.10	2.30	2.50	2.70	
3½	2⅞	1.27	4	1.60	...	...	...	...	...	1.85	2.00	2.15	2.30	2.60	2.90	3.20	3.50	3.80	4.10	
4	2⅞	1.75	4	2.15	...	...	...	...	...	2.35	2.55	2.75	3.00	3.40	3.80	4.20	4.60	5.00	5.40	
4½	3	2.29	4½	2.87	...	...	...	...	...	...	3.01	3.21	3.40	3.95	4.35	4.73	5.12	5.52	5.90	
5	3⅛	2.86	4½	3.56	...	...	...	...	...	...	3.79	4.03	4.30	5.00	5.52	6.03	6.53	7.05	7.54	
6	...	5.52	...	6.37	...	...	...	...	...	...	...	6.65	6.95	7.55	8.15	8.75	9.35	9.95	10.60	

For list of galvanized nipples made from extra strong pipe, add list of standard black nipples to list of standard galvanized nipples.  
 For list of lengths under 12 inches not listed use the list of the next longer length.  
 For list of lengths 13 to 24 inch inclusive compute price by combining list of shorter lengths.

BLACK NIPPLES					RIGHT AND LEFT										LIST EACH						
Diam.—	—CLOSE—	—SHORT—	LONG, Length Inches																		
Inch	Inch	Inch	Each	Each	2	2½	3	3½	4	4½	5	5½	6	7	8	9	10	11	12		
1⁄8	3⁄4	.07	1½	.08	.10	.11	.11	.12	.12	.13	.15	.16	.17	.19	.20	.21	.23	.24	.26		
1⁄4	7⁄8	.07	1½	.08	.10	.11	.11	.12	.12	.13	.15	.16	.17	.19	.20	.21	.23	.24	.26		
3⁄8	1	.07	1½	.08	.10	.11	.11	.12	.12	.13	.15	.16	.17	.19	.20	.21	.23	.24	.26		
1⁄2	1 1⁄8	.08	1½	.10	.11	.12	.12	.13	.13	.15	.16	.17	.19	.20	.23	.25	.28	.30	.33		
3⁄4	1 3⁄8	.11	2	.12	...	.13	.15	.16	.17	.19	.20	.21	.23	.25	.28	.30	.33	.36	.38		
	1 1⁄2	.13	2	.15	...	.17	.19	.20	.21	.23	.24	.25	.26	.32	.36	.39	.42	.46	.50		
1⁄4	1 5⁄8	.17	2½	.20	...	...	.21	.24	.26	.29	.32	.34	.37	.42	.47	.52	.58	.63	.68		
1⁄2	1 3⁄4	.21	2½	.24	...	...	.26	.29	.33	.36	.38	.41	.45	.50	.56	.62	.68	.73	.78		
	2	.28	2½	.32	...	...	.37	.41	.45	.49	.52	.58	.63	.69	.77	.86	.95	1.04	1.14		
1⁄2	2 1⁄2	.51	3	.59	...	...	...	.76	.82	.89	.95	1.02	1.11	1.23	1.34	1.46	1.59	1.71	1.82		
	2 5⁄8	.71	3	.77	...	...	...	.85	.95	1.06	1.16	1.25	1.36	1.55	1.75	1.95	2.15	2.34	2.54		
	2 7⁄8	1.20	4	1.46	...	...	...	...	...	1.67	1.80	1.93	2.08	2.34	2.60	2.86	3.12	3.38	3.64		

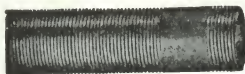
Write for prices of galvanized wrought nipples, right and left, specify quantity, diameter and length.

## DISCOUNTS ON NIPPLES

Size, Inches	BLACK		GALVANIZED	
	Close and Short	Long	Close and Short	Long
1/8 to 6	60%	65%	67%	72%
6 to 12	44%	48%	51%	55%



## TANK NIPPLES



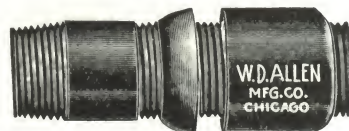
These nipples are 6 inches long and have an American Briggs standard lock-nut thread 4 inches long on one end; the other end has a standard pipe thread.

**LIST PRICES EACH**

Size, Inches	Black, List Each	Galvanized List Each
$\frac{3}{4}$ .....	\$0.13	\$0.19
$\frac{7}{8}$ .....	.13	.19
$1\frac{1}{8}$ .....	.14	.20
$1\frac{1}{2}$ .....	.17	.26
$1\frac{3}{4}$ .....	.20	.34
1 .....	.28	.44
$1\frac{1}{2}$ .....	.28	.44
$1\frac{3}{4}$ .....	.34	.52
2 .....	.48	.70
$2\frac{1}{2}$ .....	.85	1.14
3 .....	1.04	1.50

<b>DISCOUNT, Black</b> . . . . .	<b>26 %</b>	<b>OFF</b>
<b>DISCOUNT, Galvanized</b> . . . . .	<b>46 %</b>	<b>OFF</b>

## LONG SCREWS WITH COUPLING AND LOCK NUT FACED



**LIST PRICES EACH**

Size, Inches	Std. Length, Inches	Black, List Each	Galvaniz List Eac
$\frac{1}{4}$ .....	2 $\frac{1}{2}$	\$0.30	\$0.35
$\frac{3}{8}$ .....	3	.35	.40
$\frac{1}{2}$ .....	3 $\frac{1}{2}$	.40	.50
$\frac{3}{4}$ .....	4	.55	.66
1 .....	4 $\frac{1}{4}$	.75	1.00
1 $\frac{1}{4}$ .....	5	1.00	1.25
1 $\frac{1}{2}$ .....	5 $\frac{1}{2}$	1.30	1.60
2 .....	6	1.70	2.10
2 $\frac{1}{2}$ .....	7	2.70	3.10
3 .....	8	3.70	4.70

**DISCOUNT . . . . . 48% OFF**

## LOCK NUTS—CAST IRON

## LIST PRICES EACH



Size, In.	Black, List Each	Galv., List Each
2½	\$0.27	\$0.54
3	.34	.68
3½	.47	.94
4	.64	1.28
5	.90	1.80
6	1.30	2.60
8	2.35	4.70
10	3.00	6.00
12	4.00	8.00

**DISCOUNT .....18% OFF**

### LOCK NUTS—MALLEABLE IRON LIST PRICES EACH

**LIST PRICES EACH**



Size. In.	Black, List, Each	Galv., List, Each
$\frac{1}{8}$	\$0.02	\$0.03
$\frac{1}{4}$	.02 $\frac{1}{2}$	.03 $\frac{1}{2}$
$\frac{3}{8}$	.02 $\frac{1}{2}$	.03 $\frac{1}{2}$
$\frac{1}{2}$	.03	.04
$\frac{3}{4}$	.04	.05
1	.06	.08
1 $\frac{1}{4}$	.08	.10
1 $\frac{1}{2}$	.10	.13
2	.12	.16
2 $\frac{1}{2}$	.30	.39
3	.38	.50
3 $\frac{1}{2}$	.43	.56
4	.48	.62

**DISCOUNT . . . . . 18% OF**

## PIPE COUPLINGS—WROUGHT, MALLEABLE AND HYDRAULIC



**LIST EACH COUPLING**

[illegible]



## STANDARD CAST IRON ELBOWS—SCREWED

For Steam, Water or Gas

Fig. No. 1033,  
90° EllFig. No. 1034,  
ReducingFig. No. 1035,  
45° Ell

## LIST PRICES EACH

Size, In.	Rt. Hand Black	R. & L. Black	Rt. Hand. Galv.	Pitched, Black	Reducing, Black	45° Ells, Black	45° Ells, Galv.
1/4	\$0.05	\$0.06	\$0.10	.....	.....	\$0.06	\$0.12
3/8	.05	.06	.10	.....	\$0.06	.06	.12
1/2	.06	.07	.12	\$0.08	.07	.07	.14
3/4	.08	.09	.16	.10	.09	.10	.20
1	.10 1/2	.12	.21	.13	.12	.12	.24
1 1/4	.16	.18	.32	.20	.18	.19	.38
1 1/2	.20	.23	.40	.25	.23	.24	.48
2	.28	.32	.56	.35	.32	.34	.68
2 1/2	.50	.60	1.00	.65	.60	.60	1.20
3	.75	.85	1.50	1.00	.85	.90	1.80
3 1/2	1.05	.....	2.10	1.30	1.20	1.25	2.50
4	1.20	.....	2.40	1.50	1.40	1.45	2.90
5	2.00	.....	4.00	.....	2.30	2.50	5.00
6	2.75	.....	5.50	.....	3.15	3.45	6.90
8	6.75	.....	13.50	.....	7.75	8.50	17.00
10	13.50	.....	27.00	.....	15.50	17.00	34.00
12	20.00	.....	40.00	.....	23.00	25.00	50.00

DISCOUNT ..... 18% OFF

## FLANGED CAST IRON ELBOWS



Fig. No. 1036, 90° Ell



Fig. No. 1037, 45° Ell

## LIST PRICES EACH

Fig. No. 1036.

Fig. No. 1037.

Size, In.	Faced, List, Each	Faced and Drilled, List, Each	Center to Face, In.	Diam. of Flanges In.	Faced, List, Each	Faced and Drilled, List, Each	Center to Face, In.
1 1/4	\$3.00	\$3.60	3 3/4	4 5/8	\$3.30	\$3.90	2
1 1/2	3.00	3.60	4	5	3.30	3.90	2 1/4
2	3.00	3.60	4 1/2	6	3.30	3.90	2 1/2
2 1/4	3.15	3.75	5	7	3.50	4.10	3
3	3.45	4.15	5 1/2	7 1/2	3.80	4.50	3
3 1/2	4.05	4.90	6	8 1/2	4.50	5.35	3 1/2
4	4.50	5.50	6 1/2	9	5.00	6.00	4
5	6.25	7.25	7 1/2	10	6.90	7.90	4 1/2
6	7.60	8.90	8	11	8.35	9.65	5
8	12.00	13.60	9	13 1/2	12.60	14.20	5 1/2
10	19.00	21.70	11	16	20.00	22.70	6 1/2
12	28.00	31.00	12	19	29.50	32.50	7 1/2
14	41.50	45.25	14	21	41.50	45.25	7 1/2
16	54.50	59.50	15	23 1/2	54.50	59.50	8

Furnished faced only, unless otherwise ordered.

DISCOUNT ..... 22% OFF

## LONG SWEEP CAST-IRON FITTINGS

Fig. No. 1052  
Dbl. Branch Elbow

Fig. No. 1051, Elbow



Fig. No. 1053, Tee



Fig. No. 1054, Cross

## LIST PRICES EACH

Size, In.	Elbows, List, Each	Dbl. Ells, List, Each	Tees, List, Each	Crosses, List, Each
3/4	\$0.26	.....	\$0.40	\$0.85
1	.32	\$0.64	.48	.58
1 1/4	.40	.80	.60	1.10
1 1/2	.55	1.10	.82	1.50
2	.80	1.60	1.20	2.15
2 1/2	1.20	2.40	1.80	3.20
3	2.25	4.50	3.40	6.00
3 1/2	3.25	6.50	4.90	8.75
4	3.50	7.00	5.25	9.50
5	6.50	13.00	9.75	17.50
6	8.75	17.50	13.25	24.00
8	17.00	34.00	25.50	45.00
10	30.00	60.00	45.00	80.00
12	40.00	80.00	60.00	107.00

DISCOUNT ..... 31% OFF



## STANDARD CAST-IRON TEES, SCREWED

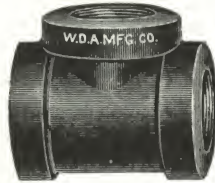


Fig. No. 1038, Straight



Fig. No. 1039, Reducing

## LIST PRICES EACH

Size, In.	Straight Tees		Reducing Tees	
	Black, List Each	Galv., List Each	Black, List Each	Galv., List Each
1/4.....	\$0.08	\$0.16	.....	.....
3/8.....	.08	.16	\$0.09	\$0.18
1/2.....	.09	.18	.10	.20
3/4.....	.12	.24	.14	.28
1.....	.15	.30	.17	.34
1 1/4.....	.23	.46	.27	.54
1 1/2.....	.29	.58	.33	.66
2.....	.41	.82	.47	.94
2 1/2.....	.73	1.46	.83	1.66
3.....	1.10	2.20	1.25	2.50
3 1/2.....	1.50	3.00	1.75	3.50
4.....	1.75	3.50	2.00	4.00
5.....	3.00	6.00	3.50	7.00
6.....	4.00	8.00	4.60	9.20
8.....	9.75	19.50	11.25	22.50
10.....	19.50	39.00	22.50	45.00
12.....	29.00	58.00	33.50	67.00

## DISCOUNT

18% OFF

CAST-IRON ECCENTRIC  
TEES AND REDUCERSFig. 1041  
TeeFig. 1042  
Reducer

These fittings are designed to prevent the accumulation and lodgment of condensation.

Orders must be accompanied with sketch showing position in which the fitting is to be placed.

PRICES ON APPLICATION.

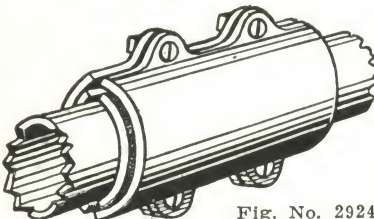
GALVANIZED  
PIPE MENDERS

Fig. No. 2924

For split or burst water, gas or steam pipes, either iron or lead. Fits all sizes, 1/2 to 1 inch. Used with rubber or asbestos packing. 1 dozen in box.

★ NET DOZEN, \$1.80

## STANDARD CAST-IRON FLANGED TEES

For Steam Working Pressures up to 125 Pounds

Fig. No. 2044  
Flanged TeeReducing Flanged Tee Reducing in Run or Branch  
Fig. No. 1030

Fig. No. 2044

Fig. No. 1030

Size, In.	Fig. No. 2044		Diam. of Flanges, In.	Center to Face, In.	Face to Face, In.	Fig. No. 1030	
	Faced, List Each	Faced and Drilled, List Each				Faced, List Each	Faced and Drilled, List Each
1 1/4	\$4.35	\$5.25	4 5/8	3 3/4	7 1/2	\$5.00	\$5.90
1 1/2	4.35	5.25	5	4	8	5.00	5.90
2	4.35	5.25	6	4 1/2	9	5.00	5.90
2 1/2	4.55	5.45	7	5	10	5.25	6.15
3	5.00	6.10	7 1/2	5 1/2	11	5.75	6.85
3 1/2	5.85	7.10	8 1/2	6	12	6.75	8.00
4	6.50	8.00	9	6 1/2	13	7.50	9.00
5	9.10	10.60	10	7 1/2	15	10.50	12.00
6	11.00	12.95	11	8	16	12.65	14.60
8	17.40	19.80	13 1/2	9	18	20.00	22.40
10	27.50	31.50	16	11	22	31.50	35.50
12	40.50	45.00	19	12	24	46.50	51.00
14	60.00	65.50	21	14	28	69.00	74.50
16	79.00	86.50	23 1/2	15	30	91.00	98.50

Furnished faced only, unless otherwise ordered.

DISCOUNT ..... 22% OFF



## CAST IRON CROSSES AND "Y" BRANCHES—SCREWED



Fig. No. 1047, Cross



Fig. No. 1048, Y Branch

## LIST PRICES EACH

Size, Inches.....	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Crosses, Black.....	\$0.16	\$0.22	\$0.27	\$0.42	\$0.53	\$0.75	\$1.30	\$2.00
Crosses, Galvanized.....	.32	.44	.54	.84	1.06	1.50	2.60	4.00
Crosses, reducing, Black.....	.18	.25	.30	.46	.60	.83	1.45	2.20
Crosses, reducing, Galvanized....	.36	.50	.60	.92	1.20	1.66	2.90	4.40
Y Branches, Black.....	.20	.28	.34	.54	.66	.94	1.66	2.50
Y Branches, Galvanized.....	.40	.56	.68	1.08	1.32	1.88	3.32	5.00

Size, Inches.....	3 1/2	4	5	6	8	10	12
Crosses, Black.....	\$2.70	\$3.15	\$ 5.50	\$ 7.25	\$17.50	\$35.00	\$ 52.50
Crosses, Galvanized.....	5.40	6.30	11.00	14.50	35.00	70.00	105.00
Crosses, reducing, Black.....	3.00	3.50	6.00	8.00	19.25	38.50	58.00
Crosses, reducing, Galvanized....	6.00	7.00	12.00	16.00	38.50	77.00	116.00
Y Branches, Black.....	3.50	4.00	7.00	9.20	22.50	45.00	67.00
Y Branches, Galvanized.....	7.00	8.00	14.00	18.40	45.00	90.00	134.00

**DISCOUNT** ..... **18% OFF**

## FLANGED CROSSES AND Y BRANCHES

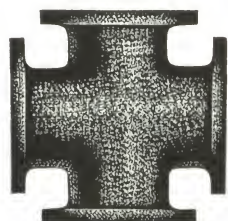


Fig. No. 1049, Cross



Fig. No. 1050, Y Branch

## LIST PRICES EACH

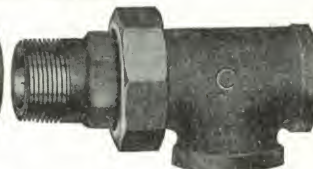
Size, inches.....	1 1/4	1 1/2	2	2 1/2	3	3 1/2
Diameter of flange.....	4 5/8	5	6	7	7 1/2	8 1/2
Crosses, faced.....	\$6.75	\$6.75	\$6.75	\$6.95	\$7.65	\$9.00
Crosses, faced and drilled....	7.95	7.95	7.95	8.15	9.05	10.70
Y Branches, faced.....			6.75	6.95	7.65	9.00
Y Branches, faced and drilled....			7.95	8.15	9.05	10.70

Size, inches.....	4	5	6	8	10	12
Diameter of flange.....	9	10	11	13 1/2	16	19
Crosses, faced.....	\$10.00	\$13.75	\$16.75	\$26.50	\$42.00	\$61.50
Crosses, faced and drilled....	12.00	15.75	19.25	29.75	47.50	67.50
Y Branches, faced.....	10.00	13.75	16.75	26.50	42.00	61.50
Y Branches, faced and drilled....	12.00	15.75	19.25	29.75	47.50	67.50

Size, inches.....	14	16	18	20	24
Diameter of flange.....	21	23 1/2	25	27 1/2	32
Crosses, faced.....	\$91.00	\$120.00	\$157.00	\$198.00	\$310.00
Crosses, faced and drilled....	98.50	130.00	169.00	212.00	330.00
Y Branches, faced.....	91.00	120.00	157.00	198.00	310.00
Y Branches, faced and drilled....	98.50	130.00	169.00	212.00	330.00

**DISCOUNT** ..... **22% OFF**

## UNION TEES

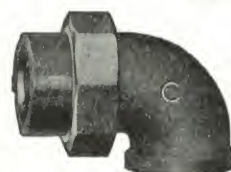
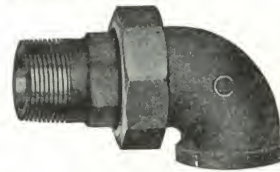
Fig. No. 1061  
With Female UnionFig. No. 1062  
With Male Union

## LIST PRICES EACH

Size, In.	With Female Union		With Male Union	
	Black, List, Each	Galv., List, Each	Black, List, Each	Galv., List, Each
1/4	\$0.40	\$0.60	\$0.48	\$0.72
3/8	.43	.65	.50	.75
1/2	.45	.68	.52	.78
3/4	.57	.86	.65	1.00
1	.70	1.05	.80	1.20
1 1/4	.95	1.45	1.10	1.65
1 1/2	1.15	1.75	1.30	1.95
2	1.70	2.55	1.95	2.95
2 1/2	3.20	4.80	3.70	5.55

**DISCOUNT** ..... **40% OFF**

## UNION ELBOWS

Fig. No. 1059  
With Female UnionFig. No. 1060  
With Male Union

## LIST PRICES EACH

Size, In.	With Female Union		With Male Union	
	Black, List, Each	Galv., List, Each	Black, List, Each	Galv., List, Each
1/4	\$0.38	\$0.57	\$0.43	\$0.65
3/8	.40	.60	.45	.70
1/2	.42	.63	.48	.72
3/4	.54	.81	.62	.93
1	.63	.95	.72	1.08
1 1/4	.90	1.35	1.05	1.60
1 1/2	1.05	1.58	1.20	1.80
2	1.55	2.35	1.80	2.70
2 1/2	2.85	4.30	3.30	4.95

**DISCOUNT** ..... **40% OFF**

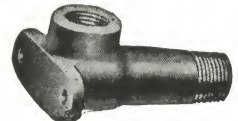


# MALLEABLE FITTINGS—Ells, Crosses and Tees

Fig. No. 1063,  
ElbowFig. No. 1064,  
45° ElbowFig. No. 1065,  
Street ElbowFig. No. 1066,  
45° Street  
Elbow

## ELBOWS. LIST EACH

Size, inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Elbows, R. H., Straight, Black	\$0.05	\$0.05	\$0.06	\$0.07	\$0.10	\$0.13	\$0.20	\$0.25	\$0.40	\$0.72	\$1.00	\$1.50	\$1.80	\$3.25	\$4.65
Elbows, R. H., Straight, Galvanized	.07	.07	.08	.09	.13	.17	.26	.33	.52	.95	1.30	1.95	2.35	4.25	6.05
Elbows, R. H., Reducing, Black			.07	.08	.11	.14	.22	.28	.44	.80	1.10	1.65			5.15
Elbows, R. H., Reducing, Galvanized			.09	.10	.14	.18	.29	.36	.57	1.05	1.45	2.15			6.70
Elbows, R. and L., Straight, Black		.06	.07	.08	.12	.15	.23	.29	.46						
Elbows, R. and L., Straight, Galvanized		.08	.09	.10	.16	.20	.30	.38	.60						
45° Elbow, Black		.06	.07	.09	.12	.16	.24	.30	.48	.86	1.20	1.80	2.20	3.90	5.60
45° Elbow, Galvanized		.08	.09	.12	.16	.21	.31	.39	.62	1.10	1.55	2.35	2.85	5.10	7.30
Street Elbow, 90°, Straight, Black		.06	.06	.07	.08	.12	.15	.23	.29	.46	.83	1.15			
Street Elbow, 90°, Straight, Galvanized		.08	.08	.09	.10	.16	.20	.30	.38	.60	1.10	1.50			
Street Elbow, 90°, Reducing, Black					.13	.17	.25	.32	.51	.92	1.30				
Street Elbow, 90°, Reducing, Galvanized					.17	.22	.33	.42	.66	1.20	1.70				
Street Elbow, 45°, Straight, Black		*.07	.08	.10	.14	.18	.28	.35	.55	*1.00	*1.40			*2.55	
Street Elbow, 45°, Straight, Galvanized		*.09	.10	.13	.18	.23	.36	.46	.72	*1.30	*1.85			*3.30	

Fig. No. 1068,  
Side Outlet ElbowFig. No. 1067,  
Drop ElbowFig. No. 1069,  
CrossFig. No. 1070,  
Long Drop Elbow

## SIDE OUTLET ELBOWS, DROP ELBOWS AND CROSSES. LIST EACH

Size, inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Side Outlet Elbow, Straight, Black	\$0.12	\$0.14	\$0.20	\$0.26	\$0.40	\$0.50	\$0.80							
Side Outlet Elbow, Straight, Galvanized	.16	.18	.26	.34	.52	.65	1.05							
Side Outlet Elbow, Reducing, Black * Non-Standard	*.14	*.16	*.22	*.28	*.44									
Side Outlet Elbow, Reducing, Galvanized * Non-Standard	*.18	*.21	*.29	*.36	*.57									
Drop Elbow, Female, Straight, Black	.07	.08	.12	.18										
Drop Elbow, Female, Straight, Galvanized	.09	.11	.16	.23										
Drop Elbow, Female, Reducing, Black	*.09	*.09	*.20											
Drop Elbow, Male and Female, Straight	.08													
Drop Elbow, Male and Female, Straight, Galvanized	.11													
Drop Elbow, Male and Female, Reducing, Black	.09	.13												
Drop Elbow, Male and Female, Reducing, Galvanized	.12	.17												
Crosses, Straight, Black	.09	.11	.13	.18	.23	.35	.44	.70	1.25	1.75	2.65	3.15	5.70	8.15
Crosses, Straight, Galvanized	.12	.14	.17	.23	.30	.46	.57	.90	1.65	2.30	3.45	4.10	7.40	10.60
Crosses, Reducing, Black		.14	.20	.25	.38	.48	.77	1.40	1.95			3.45		
Crosses, Reducing, Galvanized		.18	.26	.33	.50	.62	1.00	1.85	2.55			4.50		

## LONG DROP ELBOWS. LIST EACH

Long Drop Elbows, Sizes, inches	1/4 x 3/8	3/8 x 1/2	1/2 x 3/4	3/4 x 1
Drop Length, Overall, inches	2 1/2	2 1/2	3 1/8	3 1/8
Straight or Reducing, Black	*\$0.11			
Straight or Reducing, Galvanized	*.14	.13	*\$0.17	*\$0.15

Fig. No. 1071,  
Beaded TeeFig. No. 1074,  
Service TeesFig. No. 1072,  
Four-Way TeeFig. No. 1073,  
Drop Tee

## TEES. LIST EACH

Size, inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Tee, Straight, Black	\$0.07	\$0.07	\$0.08	\$0.10	\$0.13	\$0.17	\$0.26	\$0.33	\$0.52	\$0.90	\$1.30	\$2.00	\$2.40	\$4.25	\$6.00
Tee, Straight, Galvanized	.09	.09	.10	.13	.17	.22	.34	.43	.68	1.20	1.70	2.60	3.10	5.55	7.80
Tee, Reducing, Black		.09	.11	.15	.19	.29	.37	.57	1.00	1.45	2.20	2.65	4.70	6.60	
Tee, Reducing, Galvanized		.12	.14	.20	.25	.38	.48	.75	1.30	1.90	2.85	3.45	6.10	8.60	
Service Tee, Straight, Black		.09	.12	.15	.20	.30	.38	.60							
Service Tee, Straight, Galvanized		.12	.16	.20	.26	.39	.50	.78							
Service Tee, Reducing, Black			.17	.22	.33	.42	.66								
Service Tee, Reducing, Galvanized			.29	.43	.55	.86									
Four-Way Tee, Black		.16	.20	.26	.34	.52	.66	1.05							
Four-Way Tee, Galvanized		.21	.26	.34	.44	.68	.86	1.35							
Drop Tee, Female, Straight, Black		.10	.15	.22											
Drop Tee, Female, Straight, Galvanized		.13	.20	.28											
Drop Tee, Female, Reducing, Black		.11	.17	.24	.32										
Drop Tee, Female, Reducing, Galvanized			.22	.31											
Drop Tee, Male and Female, Straight, Black		.10	.15	.22											
Drop Tee, Male and Female, Straight, Galvanized		.13	.20	.28											
Drop Tee, Male and Female, Reducing, Black			.17	.24											
Drop Tee, Male and Female, Reducing, Galvanized			.22	.31											

## DISCOUNT

90° Elbows and Tees, 1/2 Inch and 3/4 Inch Straight	40% OFF
Sizes Only, Black or Galvanized	18% OFF
All Other Standard Fittings	LIST PLUS 3%
*Non-Standard Sizes	



**CAST-IRON PLUGS**  
Countersunk and Solid

Fig. No. 2780



Fig. No. 2781

**LIST PRICES EACH**

Fig. 2780 Countersunk, List Each	Fig. 2781 Solid, List Each
\$0.02	\$0.02
\$0.04	.02
.04	.04
.06	.06
.08	.08
.09	.09
.11	.11
.15	.15
.30	.27
.40	.38

DISCOUNT ..... 39% OFF

**SLOTTED  
PIPE  
PLUGS**

Fig. 3302

**LIST PRICES EACH**

Size, In.	Black, List Each
1/8	\$0.02
1/4	.02

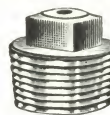
DISCOUNT  
39% OFF**CAST-IRON PLUGS**

Fig. No. 1087

**LIST PRICES EACH**

Size, In.	Black, List Each	Galv., List Each	Size, In.	Black, List Each	Galv., List Each
1/8	\$0.02	\$0.04	2 1/2	.18	.36
1/4	.02	.04	3	.25	.50
3/8	.02	.04	3 1/2	\$0.38	\$0.76
1/2	.02	.04	4	.42	.84
3/4	.03	.06	5	.88	.75
1	.04	.08	6	1.20	5.40
1 1/4	.05	.10	8	2.75	2.50
1 1/2	.07	.14	10	3.75	7.50
2	.10	.20	12	5.00	10.00

DISCOUNT, Black ..... 39% OFF  
DISCOUNT, Galvanized ..... 46% OFF**CAST-IRON BUSHINGS**

Reducing two or more sizes, up to 2 1/2 inch, inclusive.  
Reducing one or more sizes, 3 inch and up.

**LIST PRICES EACH**

Size, In.	Black, List Each	Galv., List Each
1/4	\$0.04	\$0.08
3/8	.04	.08
1/2	.04	.08
3/4	.05	.10
1	.06	.12
1 1/4	.07	.14
1 1/2	.09	.18
2	.14	.28
2 1/2	.21	.42
3	.30	.60
3 1/2	.40	.80
4	.50	1.00
5	.93	1.85
6	1.25	2.50
8	2.75	5.50
10	3.75	7.50
12	5.00	10.00

DISCOUNT, Black .. 39% OFF  
DISCOUNT, Galv. ... 46% OFF**MALLEABLE IRON  
BUSHINGS**  
REDUCING ONE SIZE ONLY

Fig. No. 1082

**LIST PRICES EACH**

Size, In.	Black, List Each	Galv., List Each
1/4	\$0.04	\$0.08
3/8	.04	.08
1/2	.04	.08
3/4	.05	.10
1	.06	.12
1 1/4	.07	.14
1 1/2	.09	.18
2	.14	.28
2 1/2	.21	.42
3	.30	.60
3 1/2	.40	.80
4	.50	1.00
5	.93	1.85

DISCOUNT, Black .. 39% OFF  
DISCOUNT, Galv. ... 46% OFF**MALLEABLE IRON FACED  
BUSHINGS**  
REDUCING ONE SIZE ONLY

Fig. No. 1083

**LIST PRICES EACH**

Size, In.	Black, List Each
1/4	\$0.08
3/8	.08
1/2	.09
3/4	.11
1	.13
1 1/4	.17
1 1/2	.22
2	.32
2 1/2	.48
3	.70
3 1/2	1.20
4	1.50
5	2.60

DISCOUNT ..... 39% OFF

**MALLEABLE IRON CAPS**  
LIST PRICES EACH

Fig. No. 1085

Size, In.	Style	Black, List Each	Galv., List Each
1/4	Plain	\$0.03	\$0.04
3/8	Plain	\$0.04	\$0.05
1/2	Plain	\$0.05	\$0.07
3/4	Plain	\$0.08	\$0.10
1	Plain	\$0.10	\$0.13
1-1/4	Banded	\$0.12	\$0.17
1-1/2	Banded	\$0.18	\$0.23
2	Banded	\$0.25	\$0.33
2-1/2	Banded	\$0.40	\$0.52
3	Banded	\$0.60	\$0.78
3-1/2	Banded	\$0.80	\$1.05
4	Banded	\$1.10	\$1.45

DISCOUNT ..... 18% OFF  
Non-Standard, 1/4 to 1 Banded.. LIST PLUS 3%**MALLEABLE IRON REDUCERS**  
LIST PRICES EACH

Size, In.	Black, List Each	Galv., List Each
1/4	\$0.05	\$0.07
3/8	.05	.07
1/2	.06	.08
3/4	.09	.12
1	.12	.16
1 1/4	.15	.20
1 1/2	.18	.23
2	.28	.36
2 1/2	.50	.65
3	.75	1.00
3 1/2	1.10	1.45
4	1.40	1.85

DISCOUNT ..... 18% OFF



Fig. No. 1084

**CAST-IRON CAPS****LIST PRICES EACH**

Size, In.	Black, List Each	Galv., List Each
4	\$0.87	\$ 1.74
5	1.20	2.40
6	1.55	3.10
8	2.85	5.70
10	5.50	11.00
12	7.00	14.00

DISCOUNT .. 18% OFF

**CAST-IRON REDUCERS****LIST PRICES EACH**

Size, In.	Black, List Each	Galv., List Each
5	\$ 2.00	\$ 4.00
6	2.70	5.40
8	6.75	13.50
10	10.00	20.00
12	15.00	30.00

DISCOUNT .. 18% OFF



Fig. No. 1044



Fig. No. 1043



**STANDARD UNIONS—MALLEABLE IRON****Gaskets Extra**

For steam working pressures up to 150 pounds.

Size, Inches	Black, List Each	Galvanized, List Each
1/8	\$0.18	\$0.27
1/4	.18	.27
3/8	.20	.30
1/2	.22	.33
3/4	.27	.40
1	.33	.50
1 1/4	.46	.70
1 1/2	.58	.90
2	.75	1.15
2 1/2	1.55	2.35
3	2.10	3.15
3 1/2	3.65	5.50
4	4.35	6.50

Fig. No. 1075  
DISCOUNT .....34% OFF

**RAILROAD UNIONS**

For steam working pressures up to 200 pounds. Malleable ring. This union has a brass ring inserted in one end.

Size, Inches	Black, List Each	Galvanized, List Each
1/8	\$0.30	\$0.45
1/4	.30	.45
3/8	.40	.60
1/2	.60	.75
3/4	.60	.90
1	.80	1.20
1 1/4	1.20	1.80
1 1/2	1.60	2.40
2	2.00	3.00
2 1/2	3.20	4.80
3	4.80	7.20
4	10.00	15.00

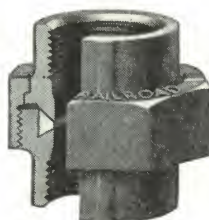


Fig. No. 1076

DISCOUNT, Black .....60% OFF

DISCOUNT, Galvanized .....64% OFF

**GEM UNIONS—MALLEABLE IRON**

A real high grade, light weight, ground joint, yet inexpensive union. Very popular. Brass to iron seat. Readily taken apart. The ground joint is non-corrosive and eliminates the use of gaskets. A brass seat ring is forced into the threadpiece and cannot loosen. For all general steam, water, gas and oil service.

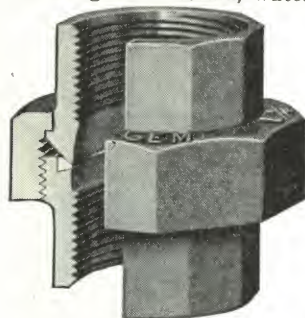


Fig. 4263

For steam working pressures up to 150 pounds.

Size Inch	End to End	Black List Each	Galv. List Each
1/4	1 1/16	\$0.30	\$0.45
3/8	1 5/8	.40	.60
1/2	1 13/16	.50	.75
3/4	2 1/16	.60	.90
1	2 1/4	.80	1.20
1 1/4	2 5/8	1.20	1.80
1 1/2	2 7/8	1.60	2.40
2	2 15/16	2.00	3.00
2 1/2	...	3.20	4.80
3	...	4.80	7.20

Black ... 70% OFF  
Galv. .... 73% OFF

**HOOK PLATES**

Fig. 1117

**LIST PRICES EACH**

Pipe Size, In....	1	1 1/4	1 1/2	2
Ctr. to Ctr., In...	2 1/2	3	3 1/2	4 1/2
1 hook	\$0.09	\$0.10	\$0.15	\$0.22
2 hooks	.18	.21	.28	.43
3 hooks	.23	.27	.43	.65
4 hooks	.26	.32	.58	.90
5 hooks	.32	.41	.72	1.15
6 hooks	.38	.52	.88	1.35

PRICE .....LIST NET

**Important:** When hook plates with more than are listed above are required, order double the number of plates, each with half as many hooks as are wanted. For example, if you want two 2x8 hook plates (total 16 hooks)

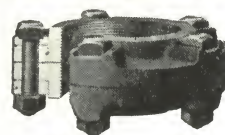
**CAST IRON FLANGE UNIONS****Faced. Gasket Extra**

Fig. No. 1078

For steam working pressures up to 125 pounds.

**LIST PRICES EACH**

Size, Inches	Diam. of Flanges, Inches	No. of Bolts	Plain, List Each	Galvanized, List Each
1/8	2 3/4	3	\$0.40	\$0.80
1/4	3 3/8	3	.46	.92
1	3 3/8	3	.52	1.04
1 1/4	4 1/8	4	.64	1.28
1 1/2	4 1/8	4	.78	1.56
2	5 1/8	4	1.00	2.00
2 1/2	5 7/8	4	1.25	2.50
3	6 5/8	4	1.50	3.00
3 1/2	7 1/4	4	1.80	3.60
4	7 3/4	5	2.10	4.20
5	9 1/8	5	3.15	6.30
6	10 3/8	6	3.95	7.90
8	12 3/4	8	7.00	14.00
10	15 1/4	10	11.50	23.00
12	17 3/8	12	16.00	32.00

DISCOUNT .....18% OFF

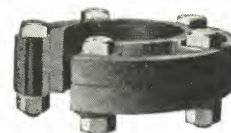
**MALLEABLE IRON FLANGE****UNIONS****Faced. Gasket Extra**

Fig. No. 2646

For steam working pressures up to 125 pounds.

**LIST PRICES EACH**

Size, Inches	Diam. of Flanges, Inches	No. of Bolts	Plain, List Each	Galvanized, List Each
3/4	2 7/8	3	\$1.40	\$2.80
1	3 1/4	4	1.60	3.20
1 1/4	3 3/4	4	2.00	4.00
1 1/2	4 1/8	4	2.50	5.00
2	5 1/8	4	3.00	6.00
2 1/2	5 7/8	4	3.50	7.00
3	6 5/8	4	4.40	8.80
3 1/2	7 1/4	4	5.25	10.50
4	7 3/4	5	6.00	12.00
5	9 1/8	5	8.00	16.00
6	10 3/8	6	9.00	18.00
8	12 3/4	8	18.00	36.00
10	15 1/4	10	33.00	66.00
12	17 3/8	12	46.00	92.00

DISCOUNT .....54% OFF

**EXPANSION HOOK PLATES**

Fig. 1118

**LIST PRICES EACH**

Pipe Size, In....	1	1 1/4	1 1/2	2
Ctr. to Ctr., In...	2 1/2	3	3 1/2	4 1/2
1 hook	\$0.15	\$0.17	\$0.25	....
2 hooks	.25	.27	.40	\$0.60
3 hooks	.35	.40	.60	.85
4 hooks	.50	.60	.75	1.00
5 hooks	.60	.70	.90	1.35
6 hooks	.70	.80	1.00	1.55

PRICE .....LIST NET



**COMMON  
CAST IRON FLANGES**

Not Faced or Drilled



Fig. No. 1080

**LIST PRICES EACH**

	Diam., Flange, In.	LIST EACH
	4	\$0.22
	5	\$0.30
	6	\$0.30
	8	\$0.42
	10	\$0.42
	12	\$0.42
	14	\$0.42
	16	\$0.42
	18	\$0.42
	20	\$0.42
	24	\$0.42
	30	\$0.50
	36	\$0.62
	42	\$0.90
	48	\$0.90
	54	\$0.90
	60	\$0.90
	66	\$0.90
	72	\$0.90
	78	\$0.90
	84	\$0.90
	90	\$0.90
	96	\$0.90
	102	\$0.90
	108	\$0.90
	114	\$0.90
	120	\$0.90
	126	\$0.90
	132	\$0.90
	138	\$0.90
	144	\$0.90
	150	\$0.90
	156	\$0.90
	162	\$0.90
	168	\$0.90
	174	\$0.90
	180	\$0.90
	186	\$0.90
	192	\$0.90
	198	\$0.90
	204	\$0.90
	210	\$0.90
	216	\$0.90
	222	\$0.90
	228	\$0.90
	234	\$0.90
	240	\$0.90
	246	\$0.90
	252	\$0.90
	258	\$0.90
	264	\$0.90
	270	\$0.90
	276	\$0.90
	282	\$0.90
	288	\$0.90
	294	\$0.90
	300	\$0.90
	306	\$0.90
	312	\$0.90
	318	\$0.90
	324	\$0.90
	330	\$0.90
	336	\$0.90
	342	\$0.90
	348	\$0.90
	354	\$0.90
	360	\$0.90
	366	\$0.90
	372	\$0.90
	378	\$0.90
	384	\$0.90
	390	\$0.90
	396	\$0.90
	402	\$0.90
	408	\$0.90
	414	\$0.90
	420	\$0.90
	426	\$0.90
	432	\$0.90
	438	\$0.90
	444	\$0.90
	450	\$0.90
	456	\$0.90
	462	\$0.90
	468	\$0.90
	474	\$0.90
	480	\$0.90
	486	\$0.90
	492	\$0.90
	498	\$0.90
	504	\$0.90
	510	\$0.90
	516	\$0.90
	522	\$0.90
	528	\$0.90
	534	\$0.90
	540	\$0.90
	546	\$0.90
	552	\$0.90
	558	\$0.90
	564	\$0.90
	570	\$0.90
	576	\$0.90
	582	\$0.90
	588	\$0.90
	594	\$0.90
	600	\$0.90
	606	\$0.90
	612	\$0.90
	618	\$0.90
	624	\$0.90
	630	\$0.90
	636	\$0.90
	642	\$0.90
	648	\$0.90
	654	\$0.90
	660	\$0.90
	666	\$0.90
	672	\$0.90
	678	\$0.90
	684	\$0.90
	690	\$0.90
	696	\$0.90
	702	\$0.90
	708	\$0.90
	714	\$0.90
	720	\$0.90
	726	\$0.90
	732	\$0.90
	738	\$0.90
	744	\$0.90
	750	\$0.90
	756	\$0.90
	762	\$0.90
	768	\$0.90
	774	\$0.90
	780	\$0.90
	786	\$0.90
	792	\$0.90
	798	\$0.90
	804	\$0.90
	810	\$0.90
	816	\$0.90
	822	\$0.90
	828	\$0.90
	834	\$0.90
	840	\$0.90
	846	\$0.90
	852	\$0.90
	858	\$0.90
	864	\$0.90
	870	\$0.90
	876	\$0.90
	882	\$0.90
	888	\$0.90
	894	\$0.90
	900	\$0.90
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	912	\$0.90
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	924	\$0.90
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	954	\$0.90
	960	\$0.90
	966	\$0.90
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	978	\$0.90
	984	\$0.90
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	1008	\$0.90
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	1038	\$0.90
	1044	\$0.90
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	1056	\$0.90
	1062	\$0.90
	1068	\$0.90
	1074	\$0.90
	1080	\$0.90
	1086	\$0.90
	1092	\$0.90
	1098	\$0.90
	1104	\$0.90
	1110	\$0.90
	1116	\$0.90
	1122	\$0.90
	1128	\$0.90
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	1176	\$0.90
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	1188	\$0.90
	1194	\$0.90
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	1242	\$0.90
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	1254	\$0.90
	1260	\$0.90
	1266	\$0.90
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	1290	\$0.90
	1296	\$0.90
	1302	\$0.90
	1308	\$0.90
	1314	\$0.90
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	1326	\$0.90
	1332	\$0.90
	1338	\$0.90
	1344	\$0.90
	1350	\$0.90
	1356	\$0.90
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	1440	\$0.90
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	1500	\$0.90
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	1596	\$0.90
	1602	\$0.90
	1608	\$0.90
	1614	\$0.90
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	1644	\$0.90
	1650	\$0.90
	1656	\$0.90
	1662	\$0.90
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	1674	\$0.90
	1680	\$0.90
	1686	\$0.90
	1692	\$0.90
	1698	\$0.90
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	1710	\$0.90
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	1734	\$0.90
	1740	\$0.90
	1746	\$0.90
	1752	\$0.90
	1758	\$0.90
	1764	\$0.90
	1770	\$0.90
	1776	\$0.90
	1782	\$0.90
	1788	\$0.90
	1794	\$0.90
	1800	\$0.90
	1806	\$0.90
	1812	\$0.90
	1818	\$0.90
	1824	\$0.90
	1830	\$0.90
	1836	\$0.90
	1842	\$0.90
	1848	\$0.90
	1854	\$0.90
	1860	\$0.90
	1866	\$0.90
	1872	\$0.90
	1878	\$0.90
	1884	\$0.90
	1890	\$0.90
	1896	\$0.90
	1902	\$0.90
	1908	\$0.90
	1914	\$0.90
	1920	\$0.90
	1926	\$0.90
	1932	\$0.90
	1938	\$0.90
	1944	\$0.90
	1950	\$0.90
	1956	\$0.90
	1962	\$0.90
	1968	\$0.90
	1974	\$0.90
	1980	\$0.90
	1986	\$0.90
	1992	\$0.90
	1998	\$0.90
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	2040	\$0.90
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	2058	\$0.90
	2064	\$0.90
	2070	\$0.90
	2076	\$0.90
	2082	\$0.90
	2088	\$0.90
	2094	\$0.90
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	2166	\$0.90
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	2196	\$0.90
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	2244	\$0.90
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	2256	\$0.90
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	2274	\$0.90
	2280	\$0.90
	2286	\$0.90
	2292	\$0.90
	2298	\$0.90
	2304	\$0.90
	2310	\$0.90
	2316	\$0.90
	2322	\$0.90
	2328	\$0.90
	2334	\$0.90
	2340	\$0.90
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	2502	\$0.90
	2508	\$0.90
	2514	\$0.90
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	2568	\$0.90
	2574	\$0.90
	2580	\$0.90
	2586	\$0.90
	2592	\$0.90
	2598	\$0.90
	2604	\$0.90
	2610	\$0.90
	2616	\$0.90
	2622	\$0.90
	2628	\$0.90
	2634	\$0.90
	2640	\$0.90
	2646	\$0.90
	2652	\$0.90
	2658	\$0.90
	2664	\$0.90
	2670	\$0.90
	2676	\$0.



## RETURN BENDS—CAST IRON



Close Pattern Fig. No. 1099



Open Pattern Fig. No. 1100



Back Outlet Fig. No. 1101

## LIST PRICES EACH

<b>CLOSE PATTERN</b> Size, Inches.....	1½	¾	1	1¼	1½	2	2½	3
Center to Center, Inches.....	1¼	1½	1¾	2¼	2½	3¼	3¾	4¼
Right Hand. Black.....	List, Each	\$0.18	\$0.20	\$0.22	\$0.28	\$0.40	\$0.57	\$1.20
Right Hand. Galvanized.....	List, Each	.36	.40	.44	.66	.80	1.14	2.40
Right and Left. Black.....	List, Each	.21	.23	.26	.33	.46	.66	1.40
Right and Left. Galvanized.....	List, Each	.21	.23	.26	.33	.46	.66	1.40
<b>OPEN PATTERN</b> Size, Inches.....	¾	1	1¼	1½	2	2½	3	
Center to Center, Inches.....	1¾	2¼	2½	3	3½	4½	5½	6½
Right Hand. Black.....	List, Each	\$0.26	\$0.30	\$0.40	\$0.55	\$0.80	\$1.35	\$2.20
Right Hand. Galvanized.....	List, Each	.52	.60	.80	1.10	1.60	2.70	4.40
Right and Left. Black.....	List, Each	.30	.35	.46	.64	.92	1.55	2.50
Right and Left. Galvanized.....	List, Each	.30	.35	.46	.64	.92	1.55	2.50
<b>BACK OUTLET</b> Size, Inches.....	¾	1	1¼	1½	2	2½	3	
Center to Center, Inches.....	1¾	2¼	2½	3	3½	4½	5½	6½
Right Hand. Black.....	List, Each	\$0.38	\$0.42	\$0.60	\$0.80	\$1.15	\$2.00	\$3.00
Right Hand. Galvanized.....	List, Each	.76	.84	1.20	1.60	2.30	4.00	6.00
Right and Left. Black.....	List, Each	.42	.48	.70	.95	1.30	2.30	3.50
Right and Left. Galvanized.....	List, Each	.42	.48	.70	.95	1.30	2.30	3.50

The Back Outlet of Right and Left Return Bends is always tapped right hand.

## DISCOUNT

18% OFF



## RETURN BENDS—CAST IRON

Fig. No. 1102

Wide Pattern, Right Hand

## LIST PRICES EACH

Size, Inches.....	1	1	1	1	1	1¼	1½	1½	1½	1½	2	2	2	2	4
Center to Center, Inches.....	3	4	5	6	8	4	6	4¾	6	8	4¾	6	7	8	11
Black.....	List Each	\$0.45	\$0.50	\$0.60	\$0.75	\$1.00	\$1.00	\$1.25	\$1.30	\$1.60	\$2.00	\$1.75	\$2.00	\$3.00	\$7.50
Galvanized.....	List Each	.80	.90	1.10	1.30	1.60	1.75	2.00	2.30	2.60	3.25	3.00	3.25	4.50	11.00

## DISCOUNT

30% OFF

## RETURN BENDS—MALLEABLE IRON



Close. Fig. No. 1103



Medium. Fig. No. 1104



Open. Fig. No. 1105

## CLOSE PATTERN RETURN BENDS, FIG. 1103. LIST EACH

Size, Inches.....	1½	¾	1	1¼	1½	2	
Center to Center, close, inches.....	1	1¼	1½	1¾	2¼	2½	3
Right Hand, close. Black.....	List, Each	\$0.16	\$0.18	\$0.24	\$0.36	\$0.49	\$0.80
Right Hand, close. Galvanized.....	List, Each	.21	.23	.31	.47	.64	1.05
Right and Left, close. Black.....	List, Each	.18	.21	.28	.42	.56	.92
Right and Left, close. Galvanized.....	List, Each	.23	.27	.36	.55	.73	1.20

## MEDIUM PATTERN RETURN BENDS, FIG. 1104. LIST EACH

Size, Inches.....	1½	¾	1	1¼	1½	2	
Center to Center, medium, inches.....	1¼	1½	1¾	2¼	2½	3	4
Right Hand, medium. Black.....	List, Each	.17	.20	.26	.40	.55	.88
Right Hand, medium. Galvanized.....	List, Each	.22	.26	.34	.52	.72	1.15
Right and Left, medium. Black.....	List, Each	.19	.23	.30	.46	.63	1.00
Right and Left, medium. Galvanized.....	List, Each	.25	.30	.39	.60	.82	1.30

## OPEN PATTERN RETURN BENDS, FIG. 1105. LIST EACH

Size, Inches.....	1½	¾	1	1¼	1½	2	2½	3
Center to Center, open, inches.....	1½	2	2½	3	3½	4	4½	5
Right Hand. Black.....	List, Each	.19	.22	.29	.44	.62	1.00	2.15
Right Hand. Galvanized.....	List, Each	.25	.29	.38	.57	.80	1.30	2.80
Right and Left. Black.....	List, Each	.22	.26	.34	.51	.70	1.15	2.45
Right and Left. Galvanized.....	List, Each	.29	.34	.44	.66	.90	1.50	3.20

## DISCOUNT

18% OFF



BRANCH TEES



For Circulation  
Fig. 1106



For Circulation  
\*Fig. 1107  
Outlet



Inlet  
For Box Coils  
\*Fig. 1108

All openings in Branch Tees for Circulation are tapped right hand.

Branch Tees for Box Coils are always tapped left hand in branches and right hand in back inlet.

The run and back opening of Branch Tees are tapped the same size as branches unless otherwise ordered.

\*When Branch Tees are furnished with back or side outlet, this outlet is charged for as an extra branch.

Inside Diameter of Branch Tees						
Branch Tee Size, In.....	1	1	1 1/4	1 1/2	2	
Run Size, In.....	1 or 1 1/4	1 1/2 or 2	1 1/4 to 2 1/2	1 1/2 to 3	2 to 3 1/2	
Inside Diam., In.....	1 1/4	2 1/4	2 1/2	2 3/4	3 1/2	

LIST PRICES EACH

No. of Branches	1-In. Branch Tees.			1 1/4-In. Branch Tees		
	2 1/2 In. Center to Center			3 In. Center to Center		
	1-In. or 1 1/4-In. Run	1 1/2-In. Run	2-In. Run	1 1/4-In. or 1 1/2-In. Run	2-In. Run	2 1/2-In. Run
2.....	\$0.90	\$1.00	\$1.15	\$1.30	.....	.....
3.....	1.05	1.15	1.35	1.65	\$1.90	\$ 2.40
4.....	1.15	1.30	1.60	2.00	2.40	2.85
5.....	1.35	1.45	1.85	2.40	2.90	3.55
6.....	1.60	1.75	2.10	2.80	3.30	3.95
7.....	1.90	2.20	2.45	3.20	3.90	4.20
8.....	2.20	2.45	2.75	3.60	4.50	4.95
9.....	2.65	2.90	3.40	4.30	5.25	6.15
10.....	.....	3.30	4.00	4.80	5.85	6.85
11.....	.....	4.50	4.80	5.00	6.25	7.25
12.....	.....	4.75	5.10	5.25	6.50	7.65
13.....	.....	5.50	6.00	6.00	7.00	8.25
14.....	.....	7.00	7.25	6.75	7.75	9.00
15.....	.....	7.50	7.75	7.50	8.50	9.75
16.....	.....	8.00	8.25	8.50	9.50	10.75

PRICE..... \* LIST PLUS 12%

LIST PRICES EACH

No. of Branches	1 1/2-In. Branch Tees			2-In. Branch Tees		
	3 1/2 In. Center to Center			4 1/2 In. Center to Center		
	1 1/2-In. or 2-In. Run	2 1/2-In. Run	3-In. Run	2-In. or 3-In. Run	2 1/2-In. Run	3 1/2-In. Run
3.....	\$2.70	\$ 3.45	\$ 3.80	\$ 5.25	\$ 5.75	\$ 6.25
4.....	3.35	4.15	4.60	6.40	7.00	7.75
5.....	4.00	5.00	5.50	7.65	8.50	9.25
6.....	4.65	5.75	6.25	8.80	9.75	10.75
7.....	5.25	6.50	7.25	10.60	11.75	13.00
8.....	5.85	7.00	7.75	11.50	12.75	14.00
9.....	6.50	8.25	9.00	12.25	13.50	15.00
10.....	7.60	9.25	10.00	13.50	15.00	16.50
11.....	8.00	9.75	10.75	.....	.....	.....
12.....	8.50	10.50	11.50	.....	.....	.....

PRICE..... \* LIST PLUS 12%

BEAM HOOKS—LONG SHANK

Fig. No. 1119

LIST PRICES EACH

Size, In.	List Each	Size, In.	List Each
1/2	\$0.13	1 1/2	\$0.24
3/4	.15	2	.35
1	.18	2 1/2	.65
1 1/4	.22	3	.90

DISCOUNT.....2% OFF

MALLEABLE IRON RAILING FITTINGS  
FOR FENCES, ENCLOSING ENGINES AND  
MACHINERY, EXHIBITION SPACES, ETC.

INSTRUCTIONS FOR ORDERING

Specify kind, number and size. Fittings tapped as shown will be furnished unless otherwise specified. Fittings tapped otherwise than shown will be charged at 15% additional, net.

LIST EACH PIECE



Fig. 1109



Fig. 1110

No. 1 ELLS

Inches	Black	Galv.
1/2	\$0.10	\$0.13
3/4	.12	.15
1	.14	.18
1 1/4	.22	.29
1 1/2	.30	.39
2	.44	.57
2 1/2	1.00	1.30
3	2.00	2.60
1 1/4 x 1	.25	.32
1 1/2 x 3/4	.35	.45
1 1/2 x 1 1/4	.35	.45
2 x 1 1/2	.51	.66
2 1/2 x 2	1.15	1.50
3 x 2 1/2	2.30	3.00

No. 2 SIDE OUTLET ELLS

Inches	Black	Galv.
1/2	\$0.19	\$0.25
3/4	.23	.30
1	.28	.36
1 1/4	.44	.57
1 1/2	.60	.78
2	.88	1.15
2 1/2	2.00	2.60
3	3.35	4.35
1 1/4 x 1 x 1	.51	.66
1 1/2 x 1 1/4 x 1 1/4	.70	.90
2 x 1 1/2 x 1 1/2	1.05	1.35
2 1/2 x 2 x 2	2.30	3.00
3 x 2 1/2 x 2 1/2	3.85	5.00



Fig. 1111

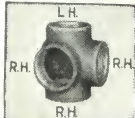


Fig. 1112

No. 3 TEES

Inches	Black	Galv.
1/2	\$0.13	\$0.17
3/4	.16	.21
1	.19	.25
1 1/4	.28	.36
1 1/2	.40	.52
2	.57	.75
2 1/2	1.30	1.70
3	2.60	3.40
1 x 1 1/4	.32	.42
1 1/4 x 1 1/4 x 1	.32	.42
1 1/4 x 1 1/4 x 1 1/2	.46	.60
1 1/2 x 1 1/2 x 3/4	.46	.60
1 1/2 x 1 1/2 x 1 1/4	.46	.60
1 1/2 x 1 1/2 x 2	.66	.86
2 x 2 x 1 1/2	.66	.86
2 x 2 x 2 1/2	1.50	1.95
2 1/2 x 2 1/2 x 2	1.50	1.95
2 1/2 x 2 1/2 x 3	3.00	3.90
3 x 3 x 2 1/2	3.00	3.90

No. 4 SIDE OUTLET TEES

Inches	Black	Galv.
1/2	\$0.25	\$0.33
3/4	.31	.40
1	.37	.48
1 1/4	.57	.75
1 1/2	.80	1.05
2	1.15	1.50
2 1/2	2.60	3.40
3	5.00	6.50
1 1/4 x 1	.66	.86
1 1/2 x 1 1/4	.92	1.20
1 1/2 x 1 1/4 x 1 1/4	.92	1.20
2 x 1 1/2	1.32	1.70
2 1/2 x 2	3.00	3.90
3 x 2 1/2	5.75	7.45

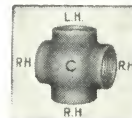


Fig. 1113

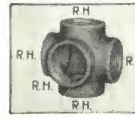


Fig. 1114

No. 5 CROSSES

Inches	Black	Galv.
1/2	\$0.18	\$0.23
3/4	.21	.27
1	.25	.33
1 1/4	.38	.49
1 1/2	.53	.70
2	.77	1.00
2 1/2	1.75	2.30
3	3.40	4.45
1 1/4 x 1	.45	.58
1 1/2 x 1 1/4	.62	.80
2 x 1 1/2	.90	1.15
2 1/2 x 2 1/2 x 2	2.05	2.65
3 x 3 x 2 1/2	3.90	5.05

No. 6 SIDE OUTLET CROSSES

Inches	Black	Galv.
1/2	\$0.32	\$0.42
3/4	.38	.50
1	.46	.60
1 1/4	.70	.91
1 1/2	1.00	1.30
2	1.45	1.90
2 1/2	3.15	4.10
3	6.00	7.80



Fig. 1115



Fig. 1116

No. 7 BASES

Inches	Black	Galv.
1/2	\$0.12	\$0.16
3/4	.16	.21
1	.20	.26
1 1/4	.34	.44
1 1/2	.50	.65
2	.80	1.05
2 1/2	1.55	2.00
3	2.75	3.60

No. 8 TOPS

Inches	Black	Galv.
1/2	\$0.12	\$0.16
3/4	.16	.21
1	.20	.26
1 1/4	.28	.36
1 1/2	.38	.50
2	.60	.78

DISCOUNT.....10% OFF



# STANDARD STOCK SIZES OF REDUCING CAST IRON FITTINGS

## 90° REDUCING SCREWED ELBOWS— RIGHT HAND

Inches	Inches	Inches	Inches	Inches
$\frac{3}{8}$ x $\frac{1}{4}$	$\frac{1}{4}$ x $\frac{3}{8}$	2 x $\frac{3}{4}$	3 x $\frac{1}{4}$	6 x 4
$\frac{1}{2}$ x $\frac{3}{8}$	$\frac{1}{4}$ x $\frac{1}{2}$	2 x $\frac{1}{2}$	3 x 1	6 x 3
$\frac{1}{2}$ x $\frac{1}{4}$	$\frac{1}{4}$ x $\frac{3}{8}$	$2\frac{1}{2}$ x 2	4 x 3	6 x $2\frac{1}{2}$
$\frac{3}{4}$ x $\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$	4 x $2\frac{1}{2}$	6 x 2
$\frac{3}{4}$ x $\frac{3}{8}$	$\frac{1}{2}$ x 1	$2\frac{1}{2}$ x $1\frac{1}{4}$	4 x 2	8 x 6
$\frac{3}{4}$ x $\frac{1}{4}$	$\frac{1}{2}$ x $\frac{3}{4}$	$2\frac{1}{2}$ x 1	4 x $1\frac{1}{2}$	8 x 3
1 x $\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{2}$	$2\frac{1}{2}$ x $\frac{3}{4}$	5 x 4	10 x 8
1 x $\frac{1}{2}$	2 x $\frac{1}{2}$	3 x $2\frac{1}{2}$	5 x 3	12 x 10
1 x $\frac{3}{8}$	2 x $\frac{1}{4}$	3 x 2	5 x $2\frac{1}{2}$	12 x 8
$1\frac{1}{4}$ x 1	2 x 1	3 x $1\frac{1}{2}$	6 x 5	

## 90° REDUCING PITCHED SCREWED ELBOWS— RIGHT HAND

Inches	Inches	Inches	Inches
$\frac{3}{4}$ x $\frac{1}{2}$	$\frac{1}{4}$ x 1	$1\frac{1}{2}$ x 1	$2\frac{1}{2}$ x 2
1 x $\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{4}$	2 x $1\frac{1}{2}$	3 x $2\frac{1}{2}$

## REDUCERS, CAST IRON

Inches	Inches	Inches	Inches	Inches
$\frac{3}{4}$ x $\frac{1}{2}$	$2\frac{1}{2}$ x 2	3 x $1\frac{1}{4}$	5 x $2\frac{1}{2}$	8 x 4
1 x $\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$	3 x 1	5 x 2	10 x 8
1 x $\frac{1}{2}$	$2\frac{1}{2}$ x $1\frac{1}{4}$	4 x 3	6 x 5	10 x 6
$1\frac{1}{4}$ x 1	$2\frac{1}{2}$ x 1	4 x $2\frac{1}{2}$	6 x 4	12 x 10
$1\frac{1}{2}$ x $1\frac{1}{4}$	$2\frac{1}{2}$ x $\frac{3}{4}$	4 x 2	6 x 3	12 x 8
2 x $1\frac{1}{2}$	3 x $2\frac{1}{2}$	4 x $1\frac{1}{2}$	6 x $2\frac{1}{2}$	
2 x $1\frac{1}{4}$	3 x 2	5 x 4	6 x 2	
2 x 1	3 x $1\frac{1}{2}$	5 x 3	8 x 6	

## ECCENTRIC REDUCERS, CAST IRON

Inches	Inches	Inches	Inches	Inches
$1\frac{1}{4}$ x 1	2 x 1	3 x 2	4 x $1\frac{1}{2}$	6 x 5
$1\frac{1}{4}$ x $\frac{3}{4}$	2 x $\frac{3}{4}$	3 x $1\frac{1}{2}$	4 x $1\frac{1}{4}$	6 x 4
$1\frac{1}{2}$ x $1\frac{1}{4}$	$2\frac{1}{2}$ x 2	3 x $1\frac{1}{4}$	4 x 1	6 x 3
$1\frac{1}{2}$ x 1	$2\frac{1}{2}$ x $1\frac{1}{2}$	3 x 1	5 x 4	6 x $2\frac{1}{2}$
$1\frac{1}{2}$ x $\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{4}$	4 x 3	5 x 3	6 x 2
2 x $1\frac{1}{2}$	$2\frac{1}{2}$ x 1	4 x $2\frac{1}{2}$	5 x $2\frac{1}{2}$	8 x 6
2 x $1\frac{1}{4}$	3 x $2\frac{1}{2}$	4 x 2	5 x 2	8 x 5

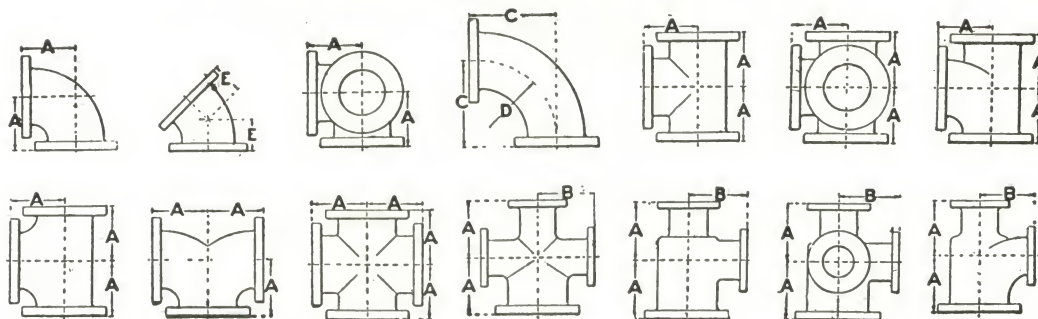
## REDUCING CROSSES, CAST IRON

Size, Inches	Size, Inches	Size, Inches	Size, Inches
$\frac{1}{2}$ x $\frac{1}{2}$ x $\frac{1}{2}$ x $\frac{1}{2}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	4 x 4 x $1\frac{1}{2}$ x $1\frac{1}{2}$
$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	4 x 4 x $1\frac{1}{4}$ x $1\frac{1}{4}$
$\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{1}{2}$ x $\frac{3}{4}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x 1	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{4}$	4 x 4 x $1\frac{1}{4}$ x 1
$\frac{3}{4}$ x $\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{1}{2}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{4}$	4 x 4 x $1\frac{1}{4}$ x $\frac{3}{4}$
1 x $\frac{1}{2}$ x 1 x $\frac{1}{2}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{2}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{2}$	4 x 4 x 1 x 1
1 x $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$	5 x 5 x 4 x 4
1 x 1 x 1 x 1	2 x 1 x 2 x 1	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	5 x 5 x 3 x 3
1 x $\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{1}{2}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{4}$	5 x 5 x $2\frac{1}{2}$ x $2\frac{1}{2}$
1 x $\frac{1}{2}$ x $\frac{1}{2}$ x $\frac{1}{2}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$	5 x 5 x 2 x 2
1 x $\frac{1}{2}$ x $\frac{3}{8}$ x $\frac{3}{8}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{8}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{8}$	5 x 5 x $1\frac{1}{2}$ x $1\frac{1}{2}$
1 x $\frac{1}{2}$ x $\frac{1}{8}$ x $\frac{1}{8}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{16}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{16}$	5 x 5 x $1\frac{1}{4}$ x $1\frac{1}{4}$
1 x $\frac{1}{2}$ x $\frac{1}{16}$ x $\frac{1}{16}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{32}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{32}$	5 x 5 x $1\frac{1}{8}$ x $1\frac{1}{8}$
1 x $\frac{1}{2}$ x $\frac{1}{32}$ x $\frac{1}{32}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{64}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{64}$	5 x 5 x $1\frac{1}{16}$ x $1\frac{1}{16}$
1 x $\frac{1}{2}$ x $\frac{1}{512}$ x $\frac{1}{512}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1024}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1024}$	5 x 5 x $1\frac{1}{32}$ x $1\frac{1}{32}$
1 x $\frac{1}{2}$ x $\frac{1}{8192}$ x $\frac{1}{8192}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{16384}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{16384}$	5 x 5 x $1\frac{1}{64}$ x $1\frac{1}{64}$
1 x $\frac{1}{2}$ x $\frac{1}{131072}$ x $\frac{1}{131072}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{262144}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{262144}$	5 x 5 x $1\frac{1}{128}$ x $1\frac{1}{128}$
1 x $\frac{1}{2}$ x $\frac{1}{2097152}$ x $\frac{1}{2097152}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4194304}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4194304}$	5 x 5 x $1\frac{1}{256}$ x $1\frac{1}{256}$
1 x $\frac{1}{2}$ x $\frac{1}{33554432}$ x $\frac{1}{33554432}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{67108864}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{67108864}$	5 x 5 x $1\frac{1}{512}$ x $1\frac{1}{512}$
1 x $\frac{1}{2}$ x $\frac{1}{536870400}$ x $\frac{1}{536870400}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{107374976}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{107374976}$	5 x 5 x $1\frac{1}{1024}$ x $1\frac{1}{1024}$
1 x $\frac{1}{2}$ x $\frac{1}{8589926400}$ x $\frac{1}{8589926400}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1718039680}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1718039680}$	5 x 5 x $1\frac{1}{2048}$ x $1\frac{1}{2048}$
1 x $\frac{1}{2}$ x $\frac{1}{137438822400}$ x $\frac{1}{137438822400}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{27500633600}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{27500633600}$	5 x 5 x $1\frac{1}{4096}$ x $1\frac{1}{4096}$
1 x $\frac{1}{2}$ x $\frac{1}{2199021160960}$ x $\frac{1}{2199021160960}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{440010137600}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{440010137600}$	5 x 5 x $1\frac{1}{8192}$ x $1\frac{1}{8192}$
1 x $\frac{1}{2}$ x $\frac{1}{35184338572800}$ x $\frac{1}{35184338572800}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{7040162150400}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{7040162150400}$	5 x 5 x $1\frac{1}{16384}$ x $1\frac{1}{16384}$
1 x $\frac{1}{2}$ x $\frac{1}{562949417164800}$ x $\frac{1}{562949417164800}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{112294614400000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{112294614400000}$	5 x 5 x $1\frac{1}{32768}$ x $1\frac{1}{32768}$
1 x $\frac{1}{2}$ x $\frac{1}{9007190674636800}$ x $\frac{1}{9007190674636800}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1796713830400000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1796713830400000}$	5 x 5 x $1\frac{1}{65536}$ x $1\frac{1}{65536}$
1 x $\frac{1}{2}$ x $\frac{1}{14411505079417600}$ x $\frac{1}{14411505079417600}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{289474261222400000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{289474261222400000}$	5 x 5 x $1\frac{1}{131072}$ x $1\frac{1}{131072}$
1 x $\frac{1}{2}$ x $\frac{1}{23058408127068800}$ x $\frac{1}{23058408127068800}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4611586180359400000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4611586180359400000}$	5 x 5 x $1\frac{1}{262144}$ x $1\frac{1}{262144}$
1 x $\frac{1}{2}$ x $\frac{1}{368934529993113600}$ x $\frac{1}{368934529993113600}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{737853789257504000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{737853789257504000000}$	5 x 5 x $1\frac{1}{524288}$ x $1\frac{1}{524288}$
1 x $\frac{1}{2}$ x $\frac{1}{5902952479890022400}$ x $\frac{1}{5902952479890022400}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{118068602281191040000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{118068602281191040000000}$	5 x 5 x $1\frac{1}{1048576}$ x $1\frac{1}{1048576}$
1 x $\frac{1}{2}$ x $\frac{1}{9444724007824038400}$ x $\frac{1}{9444724007824038400}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1889113636499056640000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1889113636499056640000000}$	5 x 5 x $1\frac{1}{2097152}$ x $1\frac{1}{2097152}$
1 x $\frac{1}{2}$ x $\frac{1}{151115584125184640000}$ x $\frac{1}{151115584125184640000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{30226216583984910000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{30226216583984910000000000}$	5 x 5 x $1\frac{1}{4194304}$ x $1\frac{1}{4194304}$
1 x $\frac{1}{2}$ x $\frac{1}{2417849346002944000000}$ x $\frac{1}{2417849346002944000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{483619865343758560000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{483619865343758560000000000}$	5 x 5 x $1\frac{1}{67108864}$ x $1\frac{1}{67108864}$
1 x $\frac{1}{2}$ x $\frac{1}{38685589536047104000000}$ x $\frac{1}{38685589536047104000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{7738718924899937000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{7738718924899937000000000000}$	5 x 5 x $1\frac{1}{107374976}$ x $1\frac{1}{107374976}$
1 x $\frac{1}{2}$ x $\frac{1}{619010032576753600000000}$ x $\frac{1}{619010032576753600000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{123817103190398992000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{123817103190398992000000000000}$	5 x 5 x $1\frac{1}{16384}$ x $1\frac{1}{16384}$
1 x $\frac{1}{2}$ x $\frac{1}{9904160521228057600000000}$ x $\frac{1}{9904160521228057600000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{20190736510463838400000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{20190736510463838400000000000000}$	5 x 5 x $1\frac{1}{250000}$ x $1\frac{1}{250000}$
1 x $\frac{1}{2}$ x $\frac{1}{158466568339648960000000000}$ x $\frac{1}{158466568339648960000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{315047762167497574400000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{315047762167497574400000000000000}$	5 x 5 x $1\frac{1}{390625}$ x $1\frac{1}{390625}$
1 x $\frac{1}{2}$ x $\frac{1}{2535465133434374400000000000}$ x $\frac{1}{2535465133434374400000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4836198653437585600000000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4836198653437585600000000000000000}$	5 x 5 x $1\frac{1}{5859375}$ x $1\frac{1}{5859375}$
1 x $\frac{1}{2}$ x $\frac{1}{38685589536047104000000000000}$ x $\frac{1}{38685589536047104000000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{72542979801563784000000000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{72542979801563784000000000000000000}$	5 x 5 x $1\frac{1}{87890625}$ x $1\frac{1}{87890625}$
1 x $\frac{1}{2}$ x $\frac{1}{5902952479890022400000000000000}$ x $\frac{1}{5902952479890022400000000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{10931445970234567600000000000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{10931445970234567600000000000000000000}$	5 x 5 x $1\frac{1}{1317169375}$ x $1\frac{1}{1317169375}$
1 x $\frac{1}{2}$ x $\frac{1}{8854428719835033600000000000000000}$ x $\frac{1}{8854428719835033600000000000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1639716573040257120000000000000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{1639716573040257120000000000000000000000}$	5 x 5 x $1\frac{1}{20090640625}$ x $1\frac{1}{20090640625}$
1 x $\frac{1}{2}$ x $\frac{1}{132816430797525504000000000000000000000}$ x $\frac{1}{132816430797525504000000000000000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{2459574859560385600000000000000000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{2459574859560385600000000000000000000000000}$	5 x 5 x $1\frac{1}{301360000000}$ x $1\frac{1}{301360000000}$
1 x $\frac{1}{2}$ x $\frac{1}{2012246461962882560000000000000000000000000000}$ x $\frac{1}{2012246461962882560000000000000000000000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{36881196879442739200000000000000000000000000000000}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{36881196879442739200000000000000000000000000000000}$	5 x 5 x $1\frac{1}{545270000000000}$ x $1\frac{1}{545270000000000}$
1 x $\frac{1}{2}$ x $\frac{1}{30183696929443238400000000000000000000000000000000000}$ x $\frac{1}{30183696929443238400000000000000000000000000000000000}$	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{5532559527316435200}$	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{5532559527316435200}$	5 x 5 x $1\frac{1}{829884000000000000}$ x $1\frac{1}{829884000000000000}$
1 x $\frac{1}{2}$ x $\frac{1}{45275545394164857600$			



# DIMENSIONS OF STANDARD CAST-IRON FLANGED FITTINGS

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS



Flanged Fittings are drilled in multiples of four, so that they may be made to face in any quarter and bolt holes straddle center line.

Referring to tables below, dimensions are regulated by the size of outlet.

Fittings reducing on the run only, the long body pattern will always be used, except Double Sweep Tees, on which the reduced end (dimension on request) is always longer than the regular fitting.

Bull Heads or Tees having outlet larger than the run, will be the same length center to face of all openings as a Tee with all openings of the size of the outlet. For example, a 12x12x16 inch Tee will be governed by the dimensions of the 16 inch Long Body Tee; namely, 15 inches center to face of all openings and 30 inches face to face.

## GENERAL DIMENSIONS AND TEMPLATES

For Drilling Standard Cast-Iron Flanged Fittings

For Steam Working Pressures Up to 125 Pounds

Size.....Inches	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	8	10	12	14	16
AA-Face to Face.....Inches	7-1/2	8	9	10	11	12	13	15	16	18	22	24	28	30
A-Center to Face.....Inches	3-3/4	4	4-1/2	5	5-1/2	6	6-1/2	7-1/2	8	9	11	12	14	15
B-Center to Face, Long Radius Ells.....Inches	5-1/2	6	6-1/2	7	7-3/4	8-1/2	9	10-1/4	11-1/2	14	16-1/2	19	21-1/2	24
C-Center to Face of 45° Ells.....Inches	2	2-1/4	2-1/2	3	3	3-1/2	4	4-1/2	5	5-1/2	6-1/2	7-1/2	8	8
Diameter of Flange.....Inches	4-5/8	5	6	7	7-1/2	8-1/2	9	10	11	13-1/2	16	19	21	23-1/2
Thickness of Flange.....Inches	1/2	9/16	5/8	11/16	3/4	13/16	15/16	15/16	1	1-1/8	1-3/16	1-1/4	1-3/8	1-7/16
Number of Bolts.....	4	4	4	4	4	4	4	8	8	8	12	12	12	16
Size of Bolts.....Inches	1/2	1/2	5/8	5/8	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8	1	1

Reducing Fittings, sizes 1-1/4 to 9 inches, inclusive, the dimensions do not change from above table by any deductions in the size of run or outlet, except Double Sweep Tees.

## DEMENSIONS OF STANDARD COMPANION FLANGES

FOR STEAM WORKING PRESSURES UP TO 125 POUNDS



Size.....Inches	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24	30	36
Diameter of Flange.....Inches	4 1/4	4 5/8	5	6	7	7 1/2	8 1/2	9	10	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38 3/4	46
Thickness of Flange.....Inches	3/16	1/2	5/16	3/8	11/16	3/4	13/16	15/16	15/16	1	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Length of Hub.....Inches	1 1/4	1 3/4	1 3/4	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Diameter of Bolt Circle.....Inches	3 1/2	3 1/2	3 3/4	4 3/4	5 1/2	6	7	7 1/2	8 1/2	9 1/2	11 3/4	14 1/4	17	18 3/4	21 1/4	22 3/4	25	29 1/2	36	42 3/4
Number of Bolts.....	4	4	4	4	4	4	8	8	8	8	8	12	12	12	16	16	20	20	28	32
Size of Bolts.....Inches	1/2	1/2	1/2	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4	3/4	3/4	1	1	1 1/8	1 1/8	1 1/4	1 1/4

Flanges, Flanged Fittings and Valves are drilled in multiples of four, so that they may be made to face in any quarter, and bolt holes straddle center line.



## RUBBER PUMP VALVES FOR ALL PURPOSES

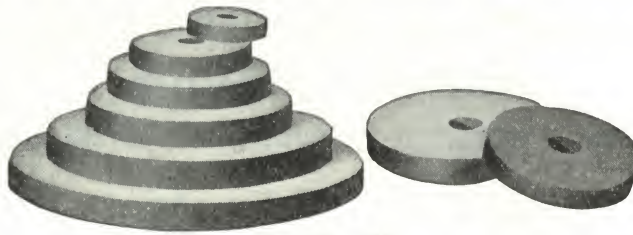


Fig. No. 532

The valves listed below represent the qualities that our many years' experience have demonstrated to be the best suited for the type of work specified. Each style is specially compounded to meet the conditions under which it is used. Valves for special purposes promptly furnished to order—let us have your specifications.

**Note:** Please order by number and specify diameter, size of hole, and thickness.  
Minimum Charge Is \$1.25 Net For Each Size or For Each Grade.

### ★ NET POUND

★ NET POUND	★ NET POUND	★ NET POUND
No. 00. Hard valve for hot water, up to 300-lb. pressure, 200 to 300 degrees temperature .....\$1.00	No. 45. Condenser valve for severe work, red rubber .....\$1.60	No. 30. Soft valve for cold water, 100-lb. pressure, 80 degrees temperature.\$0.90
No. 10. Hard valve for hot water, up to 200-lb. pressure, 100 degrees temperature .....\$0.95	No. 55. Condenser valve, red or gray, light and durable .....\$1.55	No. 35. White medium soft valve, cold water only, up to 120-lb. pressure .....\$1.00
No. 70. For acids, ammonia, etc., up to 300-lb. pressure, 100 to 300 degrees temperature .....\$1.00	No. 15. Hard valve for cold water, 400-lb. pressure, 120 degrees temperature .....\$0.90	No. 65. Medium soft, for cold water.....\$1.00
No. 60. Soft valve for air, very tough .....\$1.20	No. 20. Medium hard for cold water, 150 to 400-lb. pressure ..\$1.00	No. 17. Hard valve for high pressure work....\$1.00
No. 40. Condenser valve for severe work, gray rubber .....\$1.60	No. 25. Medium soft for cold water, 160-lb. pressure, 80 degrees temperature.\$0.90	No. 19. Medium hard valve for mine work....\$0.95
		No. 66. Special soft valve..\$1.00

### CONICAL PUMP VALVE SPRINGS—Brass Wire

Valve springs are made according to the size of valve in which they are used, not according to diameter of base of spring, and should be ordered accordingly. W. & M. Gauge is the standard.

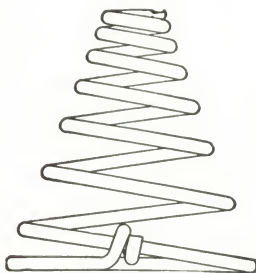


Fig. No. 567G

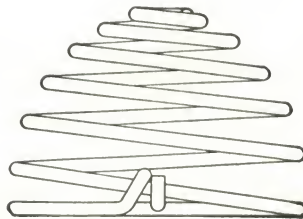


Fig. No. 568G

**MADE TO ORDER ONLY. PRICES ON APPLICATION.**

Send a sample spring and specify quantity wanted. —OR—

Send a sketch showing the height of the spring; the inside diameter of the small end of the spring; and the outside diameter of spring base. Specify diameter of valve for which spring is to be used. Specify wire:— Brass; Phosphor Bronze; or Steel. Specify size of wire and name of gauge used. Specify quantity wanted.

### SPRING CYLINDERS

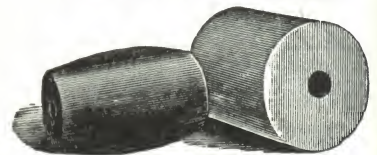


Fig. No. 549

Pure rubber springs for all kinds of mechanical purposes. Prices on application.

### CUSHIONS FOR BRADLEY HAMMERS



Fig. No. 5500

High grade stock for hammer work. Specify SHAPE, Diameter of TOP and BOTTOM, and HEIGHT. Price on Application.



## GAS FIXTURE FITTINGS

## MALE HOSE COCK

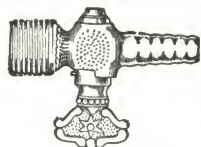


Fig. No. 1120

★ NET DOZEN

1/2 inch	.....\$2.24
3/8 inch	.....2.08
1/4 inch	.....2.00

## FEMALE HOSE COCK

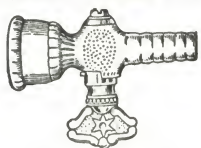


Fig. No. 1121

★ NET DOZEN

3/4 inch	.....\$3.00
1/2 inch	.....1.90
3/8 inch	.....1.75

## LEVER HANDLE HOSE COCK

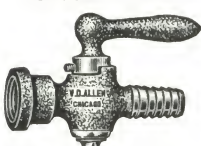


Fig. No. 2822

★ NET DOZEN

3/4 inch	.....\$6.00
1/2 inch	.....6.72
3/8 inch	.....7.80

## INDEPENDENT HOSE COCK



Fig. No. 1122

★ NET DOZEN

1/2 inch	.....\$3.20
3/8 inch	.....2.60
1/4 inch	.....2.40
3/16 inch	.....3.20

## FEMALE PILLAR COCK

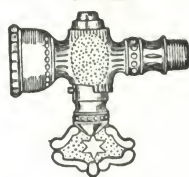


Fig. No. 1123

★ NET DOZEN

3/8 inch	.....\$1.80
1/4 inch	.....1.68
1/8 inch	.....1.56

## DOUBLE INDEPENDENT COCK

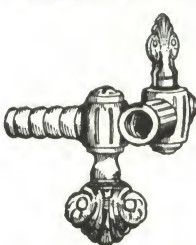


Fig. No. 2357

Size 1/8 x 1/4 in.

★ NET DOZEN, \$3.60

## MIDDLE SWING

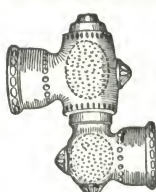


Fig. No. 1125

★ NET DOZEN

Size, In.	
3/8 x 3/8	.....\$2.48
3/8 x 1/4	.....2.20
3/8 x 1/8	.....2.08

## L BURNER COCK

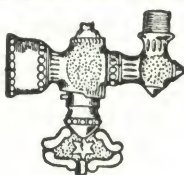


Fig. No. 1124

★ NET DOZEN

3/8 inch	.....\$2.08
1/4 inch	.....1.80
1/8 inch	.....1.68

## STRAIGHT COCK

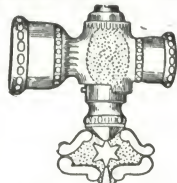


Fig. No. 1128

★ NET DOZEN

Size, In.	
1/2 x 1/2	.....\$2.24
3/8 x 3/8	.....1.96
1/4 x 1/4	.....1.80

## STANDARD GAS RANGE STOVE COCKS

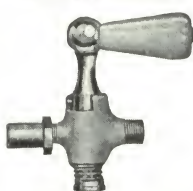


Fig. No. 3328

1/2 inch. Nickel plated. Porcelain handles. Adjustable. 1 dozen in box.

★ NET DOZEN, \$4.80  
Extra porcelain handles.  
★ NET DOZEN, \$1.20

## STIFF GAS BRACKETS

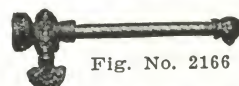


Fig. No. 2166

6 inch size.....★ NET EACH, \$0.22  
8 inch size.....★ NET EACH, .25

## SWING GAS BRACKETS

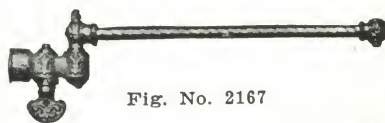


Fig. No. 2167

★ NET EACH

Single swing, 11 inch.....\$0.42  
Double swing, 20 inch......60  
Triple swing, 28 inch......90

## LAVA TIP AND PILLAR



Fig. 2171



Fig. 2170

Fig. 2171. Standard Lava Gas Tip.  
★ NET DOZEN, \$0.15

Fig. 2170. Drawn Brass Gas Pillar with fine gauze screen.

★ NET DOZEN, \$0.25

## BRASS HOSE ENDS

3/8 inch I. P. T. for hose. Brass.



★ NET DOZEN, \$0.84

Fig. 4352

## BRAZING BLOW PIPES

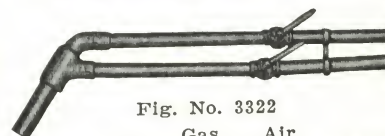
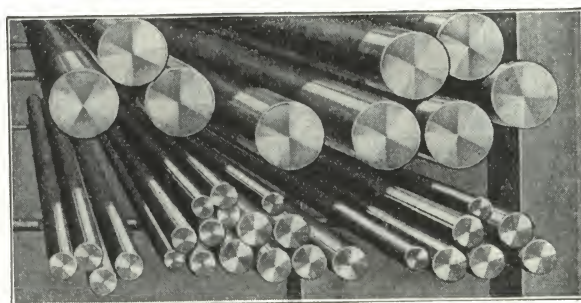


Fig. No. 3322

No.	Length, Inches	Gas Tube, Inches	Air Tube, Inches	★ NET EACH
8B	12	5/32	5/32	\$3.75
8C	14	3/8	1/8	\$3.75
8E	16	9/16	1/4	\$7.00
8F	18	5/8	5/16	\$10.50
NR.	For Chicago Gas			\$6.50

# SHEET BRASS—SHEET COPPER—BRASS AND BRONZE RODS SEAMLESS BRASS AND COPPER TUBING BRAZED BRASS, BRONZE AND COPPER TUBING



We can furnish this material promptly to order on receipt of specifications, at ruling market quotations. See page 172 for specifications on Round Brass Rod and Brass Tubing.



## BRASS STEAM FITTINGS—Iron Pipe Size

### ELLS, TEES, CROSSES, UNIONS, ETC.

Fig. 2341  
ElbowFig. 2342  
TeeFig. 2342C  
CrossFig. 2342S  
Street ElbowFig. 2343  
Union

#### LIST PRICES EACH

Size, Inches.....	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Elbows, rough.....	\$0.12	\$0.15	\$0.20	\$0.28	\$0.40	\$0.63	\$0.90	\$1.20	\$2.00	\$3.50	\$6.00	\$8.00	\$10.00
Elbows, finished.....	.30	.35	.45	.56	.75	1.10	1.55	2.00	3.00	5.50	9.00	14.00	17.50
Reducing Elbows, rough.....	.19	.25	.35	.50	.80	1.10	1.50	2.50	4.25	7.50	10.00	12.50	
Reducing Elbows, finished....	.44	.55	.70	.95	1.40	1.90	2.50	3.75	6.75	11.25	17.50	22.00	
Tees, rough.....	.17	.21	.28	.40	.55	.85	1.25	1.70	2.80	5.00	8.50	11.00	14.00
Tees, finished.....	.42	.49	.63	.80	1.05	1.50	2.15	2.80	4.20	7.75	12.75	19.50	24.50
Reducing Tees, rough.....	.25	.35	.50	.70	1.05	1.55	2.10	3.50	6.25	10.50	14.00	17.50	
Reducing Tees, finished.....	.60	.77	1.00	1.30	1.85	2.65	3.50	5.25	9.75	15.80	24.50	30.50	
Crosses, rough.....	.25	.30	.40	.55	.80	1.25	1.80	2.40	4.00	7.00	12.00	16.00	20.00
Crosses, finished.....	.60	.70	.90	1.10	1.50	2.20	3.10	4.00	6.00	11.00	18.00	28.00	35.00
45° Elbows, rough.....	.16	.20	.25	.31	.40	.63	.90	1.20	2.00	3.50	6.00	8.00	10.00
45° Elbows, finished.....	.38	.45	.55	.66	.85	1.23	1.70	2.20	3.25	6.00	9.75	15.50	19.50
Street Elbows, rough.....	.25	.27	.33	.48	.63	.85	1.50	2.00	3.25	6.00	10.00	14.00	17.50
Street Elbows, finished.....	.47	.52	.63	.83	1.08	1.45	2.30	3.00	4.50	8.50	13.75	18.00	22.00
Side Outlet Elbows, rough....	.45	.60	.85	1.20	1.90	2.75	3.60	6.00	10.50	18.00	.....	.....	.....
Side Outlet Elbows, finished..	1.05	1.35	1.70	2.25	3.30	4.70	6.00	9.00	16.50	27.00	.....	.....	.....
Four-Way Tees, rough.....	.75	.90	1.20	1.65	2.50	3.75	5.00	8.50	.....	.....	.....	.....	.....
Four-Way Tees, finished.....	1.40	1.65	2.05	2.70	3.90	5.70	7.40	11.50	.....	.....	.....	.....	.....
Unions, Semi-finished.....	.45	.55	.75	.95	1.30	1.75	2.50	3.00	4.50	8.25	12.75	.....	.....
Unions, finished.....	.50	.60	.85	1.05	1.40	1.90	2.75	3.25	5.00	9.00	.....	.....	.....
Bushings, rough.....	.10	.12	.15	.22	.35	.50	.70	1.00	1.50	2.50	3.75	5.00	
Bushings, finished.....	.22	.27	.35	.47	.70	1.00	1.40	2.00	3.00	4.50	6.25	8.00	
Plugs, rough.....	.08	.10	.12	.15	.20	.30	.45	.60	.95	1.50	2.25	3.75	5.00
Plugs, finished.....	.23	.30	.37	.43	.55	.75	1.00	1.30	1.95	3.00	4.25	6.25	8.00
Caps, rough.....	.10	.13	.16	.20	.30	.42	.60	.80	1.25	2.50	3.50	5.50	7.00
Caps, finished.....	.20	.25	.31	.40	.55	.77	1.10	1.50	2.25	4.00	5.50	8.00	10.00
Locknuts, rough.....	.10	.10	.12	.15	.20	.28	.40	.55	.80	1.75	2.75	4.00	5.00
Locknuts, finished.....	.24	.25	.32	.40	.50	.65	.85	1.10	1.60	3.25	4.75	6.50	8.00
Reducers, rough.....	.15	.20	.28	.40	.60	.90	1.10	1.75	2.75	4.00	6.00	8.00	
Reducers, finished.....	.35	.45	.56	.75	1.05	1.55	1.90	2.75	4.75	7.00	12.00	15.50	
Couplings, rough.....	.10	.13	.17	.25	.37	.55	.80	1.00	1.60	2.50	3.50	5.25	7.00
Couplings, finished.....	.24	.28	.36	.46	.63	.90	1.30	1.60	2.35	4.00	5.75	9.75	12.50

Bushings reducing more than two sizes made to order.

Reducing brass fittings made to order at a special discount according to quantity ordered.

**DISCOUNT** ..... **58% OFF**



Fig. No. 2345, Close.

## BRASS NIPPLES

### Iron Pipe Size

Lengths of Close Nipples conform to the Manufacturers' Standard.

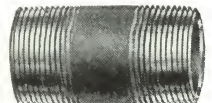


Fig. No. 2346, Shoulder.

#### LIST PRICES, EACH

Size	Length	Close List Each	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
1/8	3/4	\$0.11	\$0.13	\$0.15	\$0.17	\$0.19	\$0.21	\$0.23	\$0.25	\$0.27	\$0.29	\$0.31
1/4	7/8	.13	.16	.19	.22	.25	.28	.31	.34	.37	.40	.43
3/8	1	.15	.19	.23	.27	.31	.35	.39	.43	.47	.51	.55
1/2	1 1/8	.23	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70
3/4	1 3/8	.28	.....	.35	.42	.49	.56	.63	.70	.77	.84	.91
1	1 1/2	.37	.....	.44	.53	.62	.71	.80	.89	.98	1.07	1.16
1 1/4	1 5/8	.60	.....	.....	.75	.88	1.01	1.14	1.27	1.40	1.53	1.66
1 1/2	1 3/4	.70	.....	.....	.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95
2	2	1.00	.....	.....	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60
2 1/2	2 1/2	1.70	.....	.....	.....	2.00	2.30	2.60	2.90	3.20	3.50	3.80
3	2 5/8	2.50	.....	.....	.....	2.90	3.30	3.70	4.10	4.50	4.90	5.30
3 1/2	2 3/4	4.00	.....	.....	.....	.....	.....	5.40	6.00	6.60	7.20	7.80
4	2 7/8	4.75	.....	.....	.....	.....	.....	6.15	6.85	7.55	8.25	8.95

Polished brass nipples, longer than close, add 50% to list prices.

**DISCOUNT** { 1/8 to 2 Inch Size..... **69% OFF**  
 { 2-1/2 to 6 Inch Size..... **63% OFF**



# BRASS TUBING

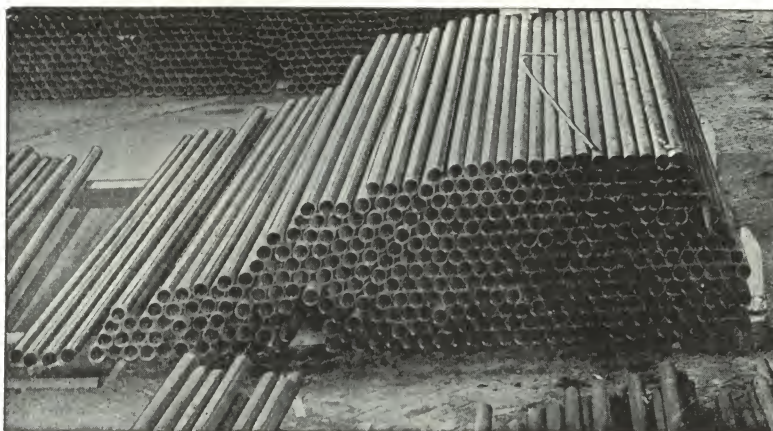


Fig. No. 3368

## Iron Pipe Sizes---Standard 12-Foot Lengths Carried in Stock

Diameter, Inches			Pounds, per foot	Iron Pipe Size	Diameter, Inches			Pounds, per foot	Iron Pipe Size	Diameter, Inches			Pounds, per foot
Outside	Inside				Outside	Inside				Outside	Inside		
1/8	.405	.281	.246	1/2	.840	.625		.911	1 1/4	1.660	1.368		2.557
1/4	.540	.375	.437	3/4	1.050	.822		1.235	1 1/2	1.900	1.600		3.037
3/8	.675	.494	.612	1	1.315	1.062		1.740	2	2.375	2.062		4.017

Weights given in above table are theoretically correct but variations must be expected in practice.

Rule:—For estimating safe limit or bursting pressure for brass and copper tubing, in pounds per square inch. Multiply the safe pressure, 6,500 lbs., by thickness of metal in inches. Divide the result by 1/2 the outside diameter of tube expressed in inches. The result will be the safe pressure in pounds per square inch.

**Specify sizes, prices will be quoted upon application**

# ROUND BRASS RODS

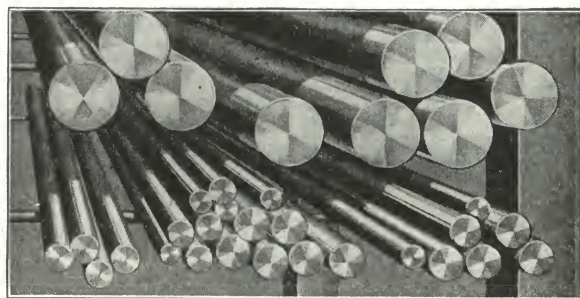


Fig. No. 3364

## Standard 12-Foot Lengths Carried in Stock

Diameter, Inches	Weight, Lbs. Round Bar 1 foot long	Diameter, Inches	Weight, Lbs. Round Bar 1 foot long	Diameter, Inches	Weight, Lbs. Round Bar 1 foot long	Diameter, Inches	Weight, Lbs. Round Bar 1 foot long
1/16	.01132	9/16	.9167	1 1/16	3.271	1 1/16	7.073
1/8	.04527	5/8	1.132	1 1/8	3.667	1 5/8	7.651
3/16	.1019	11/16	1.369	1 3/16	4.086	1 11/16	8.250
1/4	.1811	3/4	1.630	1 1/4	4.527	1 3/4	8.873
5/16	.2829	13/16	1.913	1 5/16	4.991	1 13/16	9.518
3/8	.4074	7/8	2.218	1 3/8	5.478	1 7/8	10.19
7/16	.5546	15/16	2.546	1 7/16	5.987	1 15/16	10.88
1/2	.7243	1	2.897	1 1/2	6.519	2	11.59

Weights given in table are theoretically correct but variations must be expected in practice.

**Furnish Specifications, price will be quoted upon application**

SHEET BRASS—SHEET COPPER—BRONZE RODS—COPPER TUBING—BRAZED BRASS, BRONZE AND COPPER TUBING. CAN BE FURNISHED PROMPTLY TO ORDER UPON RECEIPT OF SPECIFICATIONS AT RULING MARKET QUOTATIONS



## EXTRA HEAVY MALLEABLE IRON FITTINGS FOR 300 POUNDS WORKING PRESSURE



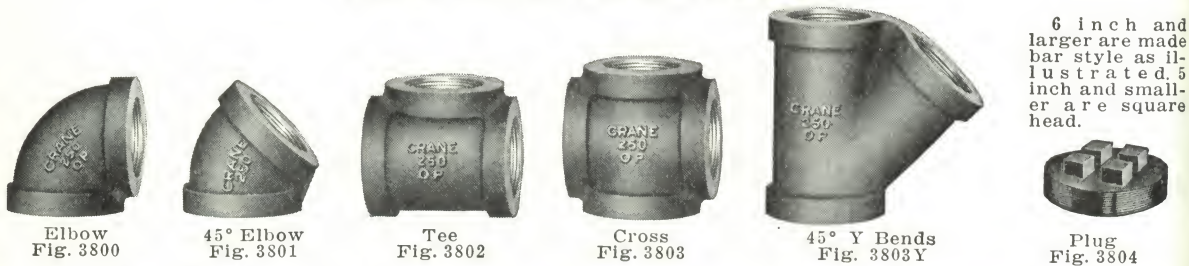
These fittings are all tested, have long thread lengths and are exceptionally strong and rugged. A high grade fitting for hard use. Used in nearly all large refineries for high pressure and high temperature work around stills. While primarily to be used on hot lines in refineries, these fittings are admirably suited for use on high pressure oil, gas and water lines, and will give better satisfaction than the extremely heavy cast iron fittings used in many fields. Having extra long thread lengths, no lip for lead or caulking recess is necessary, as tight joints are being made without difficulty. They will not stretch or crack while piping is being made up.

### LIST PRICES EACH

Size Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16
3794 90° Elbows	.20	.25	.30	.35	.40	.55	.70	.90	1.50	2.40	3.25	4.25	6.50	11.00	21.00	37.00	60.00	105.00	160.00
3795 45° Elbows	.25	.30	.35	.42	.50	.65	.85	1.10	1.85	2.85	4.00	5.00	7.50	12.75	26.00	45.00	72.00		
3796 Tee	.30	.40	.45	.50	.60	.80	1.05	1.35	2.25	3.60	5.00	6.50	9.75	16.50	32.00	55.00	90.00	158.00	240.00
3797 Cross	.60	.80	.90	1.00	1.20	1.60	2.10	2.70	4.50	7.20	10.00	13.00	19.50	33.00					
3798 Reducer	.25	.28	.30	.40	.45	.55	.70	1.30	2.25	3.25	4.25			9.00	16.00	23.00	39.00		
3799 Street Elbow	.25	.30	.40	.45	.50	.70	.90	1.25	2.10	3.10	4.25	5.60							

DISCOUNT ..... 22% OFF

## EXTRA HEAVY CAST IRON FITTINGS FOR 250 POUNDS WORKING PRESSURE



For saturated steam working pressures up to 250 pounds. Tested to 250 pounds hydraulic pressure. Galvanized extra heavy fittings are double the list.

### LIST PRICES EACH

Size Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12
3800 Elbows	.25	.30	.35	.45	.60	.75	1.25	2.00	2.75	3.50	4.40	5.50	8.00	17.00	28.00	40.00	
3800R Elbows, Reducing	.35	.40	.45	.55	.75	.95	1.55	2.50	3.40	4.40	6.80	10.00	21.00	35.00	50.00		
3801 45° Elbows	.35	.40	.44	.55	.70	.90	1.50	2.50	3.50	4.50	6.75	9.75	21.00	34.00	48.00		
3802 Tees	.40	.45	.55	.70	.90	1.15	1.80	3.00	4.25	5.50	8.25	12.00	25.00	42.00	60.00		
3802R Tees, Reducing	.55	.60	.70	.90	1.15	1.40	2.25	3.75	5.30	6.85	10.25	15.00	31.00	52.00	75.00		
3803 Crosses	.60	.65	.70	.90	1.20	1.50	2.50	4.00	5.50	7.00	11.00	16.00	34.00				
3803Y Y Bends			1.10	1.35	1.80	2.25	3.75	6.00	11.00	16.50	24.00	50.00					
3804 Plugs	.04	.06	.08	.09	.11	.15	.27	.38	.57	.63	1.35	1.80	4.15	5.75	7.50		

DISCOUNT ..... 31% OFF

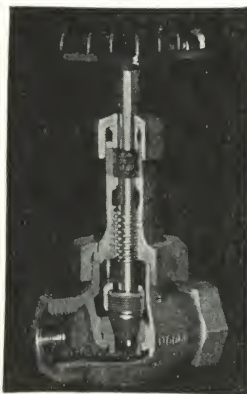


Fig. 5339. Globe  
Fig. 5340. Angle  
CONE SEAT

Size Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Fig. Kind Seat	LIST EACH							
5339 Globe Cone	\$4.75	\$5.50	\$7.00	\$9.50	\$12.50	\$18.00	\$25.00	\$36.00
5340 Angle Cone	\$4.75	\$5.50	\$7.00	\$9.50	\$12.50	\$18.00	\$25.00	\$36.00
5341 Globe Plug	\$4.50	\$5.25	\$6.75	\$9.00	\$12.00	\$17.00	\$24.00	\$35.00
5342 Angle Plug	\$4.50	\$5.25	\$6.75	\$9.00	\$12.00	\$17.00	\$24.00	\$35.00

DISCOUNT ..... 42-1/2% OFF

## HANCOCK UNION BONNET VALVES

300 POUND 550° FAHRENHEIT

CONE SEAT FOR THROTTLING SERVICE  
PLUG SEAT FOR OPEN AND SHUT SERVICE

Exceptionally hard seat and disc of stainless steel. Heat treated to a Brinell hardness of 500. Almost twice as hard as ordinary valves. Cannot be injured by dirt or scale. Will not cut or wire draw. Outlasts other valves many times over. Rugged heavy body. Extra hard bronze stem with long-wearing Acme thread. Bonnet and threads last longer. Disc can be removed without taking stem from bonnet. Extra deep packing box. Prevents steam leaks around stem. Requires fewer repacks. Easy to repack under pressure. Improved air-cooled handwheel. Fits the hand for easy operation. Seat ring has hex in the bottom, permitting use of hex bar stock as a seat wrench.

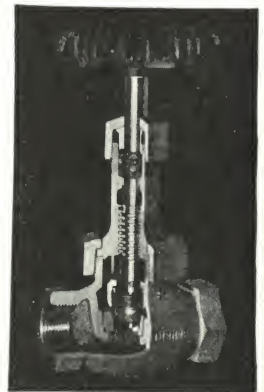


Fig. 5341. Globe  
Fig. 5342. Angle  
PLUG SEAT



## EXTRA HEAVY FORGED STEEL UNIONS

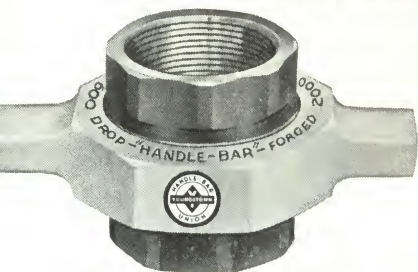


Fig. 5333 — Handle-Bar

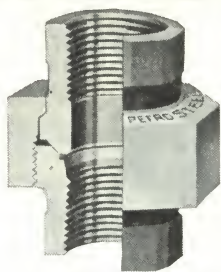


Fig. 5334 — Petro

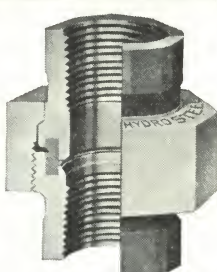


Fig. 5335 — Hydro

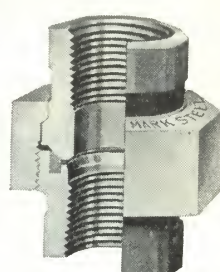


Fig. 4297 — Mark

Split die forgings of high quality, high manganese open Hearth forging steel, extra heavy ends and nuts. Nut threads are permanently lubricated and are proofed with Udylited Cadmium. Seats are machined and then rolled to plate glass smoothness under heavy pressure. Economical and safe. These unions are all interchangeable with parts of each other. Black or Udylited, (after finishing).

**Fig. 5333 HANDLE-BAR.** Steel to steel seat; or brass to brass seat. Sizes 3/8 to 4 inch. A better job can be done in less time. Use a hammer instead of a wrench to tighten or loosen the nut.

**Fig. 5334 PETRO.** Steel to steel seat. Sizes 1/8 to 4 inch. 2000 pounds cold working pressure and 1000 degrees Fahrenheit under 600 pounds working pressure. Not effected by vibration or shock.

**Fig. 5335 HYDRO.** Brass to brass seat. Sizes 1/4 to 3 inch. 2000 pounds cold working pressure and 1000 degrees Fahrenheit under 400 pounds working pressure. Three side contact of the brass ring.

**Fig. 4297 MARK.** Brass to steel seat. Sizes 1/4 to 4 inch. 2000 pounds cold working pressure and 600 degrees Fahrenheit under 400 pounds working pressure. Brass ring cannot be removed without facing it.

Size Inches	BLACK LIST EACH	UDY- LITED LIST EACH	Width Across Nut, Inches	Length Overall Inches	Handle End to End Inches	Pounds, 100 Pieces Reg- ular Unions	Pounds, 100 Handle Bar Unions
1/8	\$0.30	\$0.45	1-1/8	1-33/64	.....	21	.....
1/4	\$0.30	\$0.45	1-1/4	1-11/64	.....	27	.....
3/8	\$0.40	\$0.60	1-1/2	1-7/8	2-3/8	42	50
1/2	\$0.50	\$0.75	1-3/4	1-15/16	3	62	76
3/4	\$0.60	\$0.90	2-1/16	2-1/4	3-1/2	96	112
1	\$0.80	\$1.20	2-7/16	2-15/32	4-1/4	135	160
1-1/4	\$1.20	\$1.80	2-15/16	2-25/32	5	207	246
1-1/2	\$1.60	\$2.40	3-9/32	3-1/32	5-3/4	287	326
2	\$2.00	\$3.00	4-1/32	3-13/32	6-3/4	484	559
2-1/2	\$4.50	\$6.00	4-3/4	4-1/32	8	741	899
3	\$6.75	\$9.00	5-3/4	4-3/8	10	1217	1393
4*	\$14.00	\$18.00	.....	8	10-1/2	.....	3333

\*4 Inch. Steel to steel seats with 4 Handle Bars only.

### DISCOUNTS

Fig.	Kind	Seat	Black	Udylited
5333	Handle Bar	Steel to Steel	12% OFF	26% OFF
5333	Handle-Bar	Brass to Brass	8% OFF	23% OFF
5334	Petro	Steel to Steel	36% OFF	44% OFF
5335	Hydro	Brass to Brass	33 1/3% OFF	31% OFF
4297	Mark	Brass to Steel	33 1/3% OFF	31% OFF

## EXTRA HEAVY FLANGE UNIONS

FOR 250 POUNDS WORKING PRESSURE



Fig. 3805

For saturated steam working pressures up to 250 pounds. Faced gasket extra.

Size, Inches	..... 1/2	3/4	1	1-1/4	1-1/2
Diameter, Flanges	3-1/4	3-1/4	3-5/8	4-1/8	4-5/8
Number of Bolts	4	4	4	4	4
LIST, EACH	.....\$0.70	\$0.70	\$0.80	\$1.00	\$1.15
Size, Inches	.....2	2-1/2	3	3-1/2	4
Diameter, Flanges	5-3/8	6	6-3/4	7-1/2	8
Number of Bolts	5	5	6	6	7
LIST, EACH	.....\$1.50	\$1.90	\$2.25	\$2.70	\$3.15
Size, Inches	.....4-1/2	5	6	8	
Diameter, Flanges	8-3/4	9-3/8	10-7/8	13-1/4	
Number of Bolts	8	8	9	10	
LIST, EACH	.....\$4.00	\$4.75	\$6.00	\$10.50	
DISCOUNT	..... 8% OFF				

## OHIO COMPOSITION DISC BRASS VALVES



Fig. 5336. Mfrs. 200. Globe Fig. 5337. Mfrs. 201. Angle.  
Guaranteed for steam working pressures up to 200 pounds. They are neat appearing and look well wherever used. The composition disc made of a special compound and is especially adapted for use under severe services of all kinds. The disc does not become brittle and crack and chip under service conditions but wears down evenly. All parts of the valve, except the hand wheel, are made of high grade steam metal. All parts are made to gauge assuring perfect fits in pipe thread. Milled, exceptionally heavy hexagons. Ventilated malleable iron hand wheel. These valves can be packed while under pressure by screwing the stem back as far as possible. The general design is liberal as to metal thickness and thread contact. These valves are tested both open and closed.

### LIST EACH

Size, Inches	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3
Globe	\$1.10	\$1.10	\$1.25	\$1.60	\$2.20	\$2.80	\$4.00	\$5.50	\$8.75	\$15.75	\$22.00
Angle	\$1.10	\$1.10	\$1.25	\$1.60	\$2.20	\$2.80	\$4.00	\$5.50	\$8.75	\$15.75	\$22.00
PRICE	..... LIST PLUS 30%										

## OHIO STANDARD BRASS GATE VALVES DOUBLE WEDGE GATE

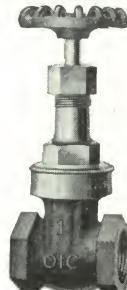


Fig. 5338. Mfrs. 100  
For steam working pressures up to 125 pounds. Each valve is tested. These valves can be repacked when wide open and under pressure. Screwed ends. Sizes up to 3 inch have screwed bonnet and rising stem. Sizes 3-1/2 to 6 inch have bolted bonnet and stationary stem.  
Size LIST  
Inches EACH  
3/8 \$1.45  
1/2 \$1.65  
3/4 \$2.05  
1 \$2.80  
1-1/4 \$3.70  
1-1/2 \$5.00  
2 \$7.30  
Size LIST  
Inches EACH  
2-1/2 \$13.00  
3 \$19.00  
3-1/2 \$43.00  
4 \$58.00  
5 \$110.00  
6 \$165.00  
DISCOUNT ..... 23% OFF

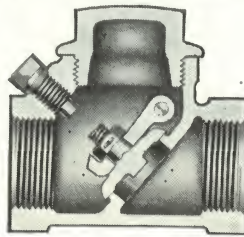


# EXTRA HEAVY VALVES

EXTRA HEAVY BRASS SWING CHECK VALVES  
FOR 300 POUNDS WORKING PRESSURE



Fig. 3816, Screwed



Section Detail

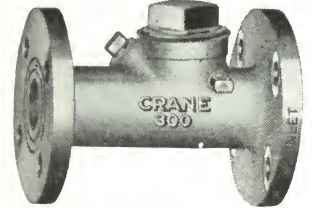


Fig. 3817, Flanged

Special brass. Recommended for 300 pounds saturated steam. 300 pounds superheated steam with temperature of 550 degrees Fahrenheit. Tested to 800 pounds hydraulic pressure. Cold water, oil, gas, non-shock: Screwed valves, 600 pounds; Flanged valves, 500 pounds.

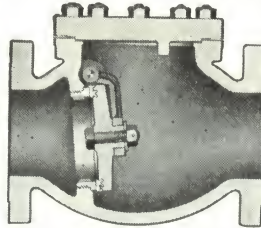
## LIST PRICES EACH

Size, Inches.....	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
3816, Screwed.....	2.70	2.70	3.25	4.25	6.00	7.50	12.00
3817, Flanged.....			10.00	13.00	18.00	22.00	37.00
Diameter of Flanges, Inches.....				4 $\frac{1}{2}$	5	6	
DISCOUNT.....	2%						

## EXTRA HEAVY FERROSTEEL SWING CHECK VALVES FOR 250 POUNDS WORKING PRESSURE



Fig. 3818, Screwed



Section Detail

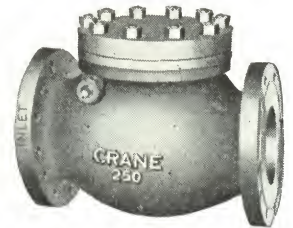


Fig. 3819, Flanged

Hard metal (bronze) seats. For saturated steam working pressures up to 250 pounds. For superheated steam working pressures up to 250 pounds and a total temperature not to exceed 500 degrees Fahrenheit. Tested to 800 pounds hydraulic pressure per square inch. May also be used in horizontal position for upward flow. On installations larger than 6 inches we recommend that flanged valves be used.

## LIST PRICES EACH

Size, Inches.....	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5	6	8	10	12	14
3818, Screwed.....	15.00	20.00	28.00	36.00	41.00	54.00	66.00				
3819, Flanged.....	17.00	22.00	30.00	38.00	44.00	57.00	70.00	105.00	175.00	250.00	350.00
End to End, Screwed.....	9 $\frac{1}{2}$	10 $\frac{3}{4}$	11 $\frac{3}{4}$	12 $\frac{1}{4}$	13	15	16 $\frac{1}{2}$				
Face to Face, Flanged.....	10 $\frac{1}{2}$	11 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{4}$	14	15 $\frac{3}{4}$	17 $\frac{1}{2}$	21	24 $\frac{1}{2}$	28	
Diameter of Flanges.....	6 $\frac{1}{2}$	7 $\frac{1}{2}$	8 $\frac{1}{4}$	9	10	11	12 $\frac{1}{2}$	15	17 $\frac{1}{2}$	20 $\frac{1}{2}$	
PRICE.....	PLUS 28%										

## EXTRA HEAVY BRASS HORIZONTAL CHECK VALVES 300 POUNDS STEAM WORKING PRESSURE

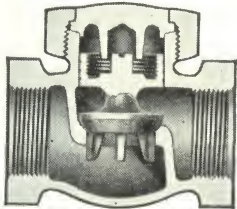


Fig. 4264, Screwed End.

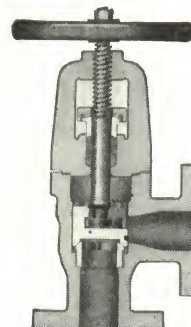
Union bonnet. Hard metal body and disc. For a total temperature not exceeding 550° F. Unusually rugged construction. Suited for severe service. Union bonnet construction is desirable where regrounding and replacement of parts must be done quickly. With dashpot in the upper part of the body. Cap and disc construction permits the insertion of a spring to keep the valve normally closed when used on gas or air.

## LIST EACH—SCREWED END

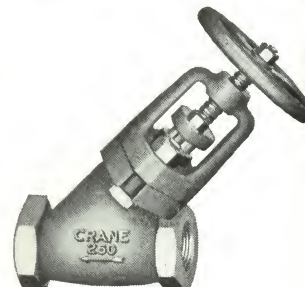
Size, Inches.....	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1
List Each.....	2.40	2.80	3.70	4.80	6.50
Size, Inches.....	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
List Each.....	9.00	12.60	18.50	34.00	54.00

DISCOUNT ..... 41% OFF

## EXTRA HEAVY FERROSTEEL BLOW-OFF VALVES



Angle—Fig. 1209



“Y” Pattern—Fig. 1210

## 250 POUNDS STEAM WORKING PRESSURE

Iron seat ring. Iron disc, self-cleaning type. Install so pressure will come on top of the discs.

## LIST PRICES EACH

Fig. No.	Pattern	Kind	1-1/2 Inch	2 Inch	2-1/2 Inch
1209	Angle	Screwed	\$12.00	\$15.00	\$20.00
1209	Angle	Flanged	\$12.00	\$15.00	\$20.00
1210	“Y”	Screwed	\$12.00	\$15.00	\$20.00
1210	“Y”	Flanged	\$12.00	\$15.00	\$20.00

PRICE, 1209 Angle ..... LIST PLUS 9%  
1210 “Y” Pattern ..... Prices on Request



# EXTRA HEAVY VALVES

## EXTRA HEAVY BRASS, COPPER DISC, GLOBE AND ANGLE VALVES

FOR 250 POUNDS WORKING PRESSURE

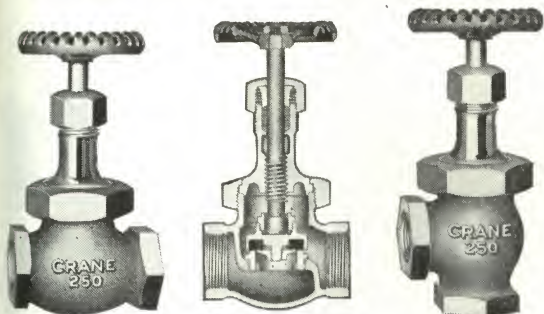


Fig. 4589  
Globe  
Screwed

Section  
Detail  
of Globe

Fig. 4590  
Angle  
Screwed

Working pressures: 250 pounds steam, 500° Fahrenheit; 500 pounds water, oil, or gas, atmospheric temperature, non-shock. Tested to 650 pounds hydrostatic. With copper renewable disc. Nickel alloy renewable seat. Union bonnet. Recommended where discs must be renewed frequently.

### LIST EACH

Size Inches	1/4	3/8	1/2	3/4
Fig. 4589 Globe	\$2.70	\$3.10	\$4.15	\$5.35
Fig. 4590 Angle	\$2.70	\$3.10	\$4.15	\$5.35
Extra Copper Discs.	\$0.12	\$0.15	\$0.18	\$0.21

Size Inches	1	1 1/4	1 1/2	2
Fig. 4589 Globe	\$7.25	\$10.00	\$14.00	\$20.00
Fig. 4590 Angle	\$7.25	\$10.00	\$14.00	\$20.00
Extra Copper Discs.	\$0.26	\$ 0.35	\$ 0.50	\$ 0.75

DISCOUNT { 1/4 to 1/2 Inch. . . . . 31% OFF  
                  { 3/4 Inch and Larger 22% OFF

## EXTRA HEAVY BRASS WEDGE GATE VALVES

FOR 300 POUNDS WORKING PRESSURE

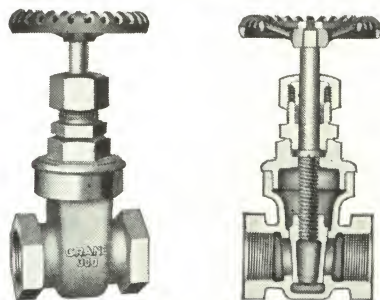


Fig. 3812. Screwed  
Fig. 3813. Flanged (Not Illustrated)

Special brass. Non-rising stem with a gland in the stuffing box. For saturated steam working pressures up to 300 pounds. For water working pressures up to 600 pounds for screwed valves; for flanged valves, 500 pounds. Extra heavy in all parts. When wide open may be repacked while under pressure.

### LIST PRICES EACH

Size Inches	1/4	3/8	1/2	3/4
Fig. 3812 Screwed	4.00	4.00	5.00	6.00
Size Inches	1	1 1/4	1 1/2	2
3812, Screwed	8.00	11.25	16.50	23.00
3813, Flanged	16.00	21.50	30.00	41.00
Diameter of Flanges	4 1/4	5 1/4	6 1/4	7 1/4
Face to Face, Flanged	4 1/2	4 3/4	5 1/8	6 1/8

DISCOUNT . . . . . 2% OFF

## EXTRA HEAVY FERROSTEEL GLOBE AND ANGLE VALVES

FOR 250 POUNDS WORKING PRESSURE

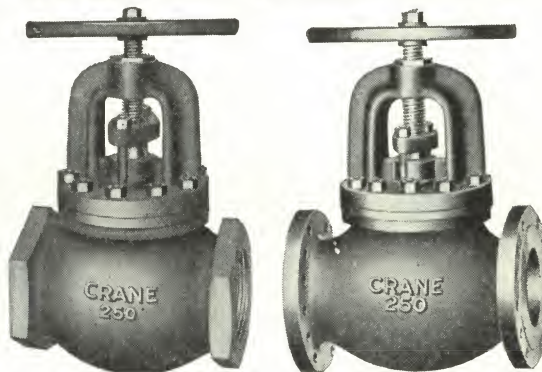


Fig. 3808  
Screwed Globe

Fig. 3809  
Screwed Angle

With yoke. Hard metal (bronze) seats. For saturated steam working pressures up to 250 pounds. For superheated steam working pressures up to 250 pounds and a total temperature not to exceed 500 degrees Fahrenheit. Tested to 800 pounds hydraulic pressure per square inch. On installations larger than 6 inches we recommend that Flanged Valves be used.

### LIST PRICES EACH

Size, Inches	2	2 1/2	3	3 1/2	4
3808, Screwed Globe	26.00	33.00	37.00	42.00	46.00
3809, Flanged Globe	27.50	35.00	40.00	45.00	50.00
3810, Screwed Angle	26.00	33.00	37.00	42.00	46.00
3811, Flanged Angle	27.50	35.00	40.00	45.00	50.00

Size, Inches	5	6	8	10
3808, Screwed Globe	61.00	75.00	120.00	200.00
3809, Flanged Globe	65.00	80.00	120.00	200.00
3810, Screwed Angle	61.00	75.00	120.00	200.00
3811, Flanged Angle	65.00	80.00	120.00	200.00

DISCOUNT . . . . . LIST PLUS 5%

## EXTRA HEAVY FERROSTEEL WEDGE GATE VALVES

FOR 250 POUNDS WORKING PRESSURE

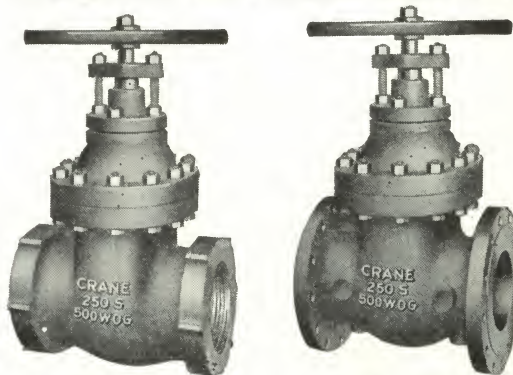


Fig. 3814  
Screwed

Fig. 3815  
Flanged

Non-rising stem. Hard metal seats. For saturated steam working pressures up to 250 pounds. Tested to 800 pounds hydraulic pressure per square inch. On installations larger than 6 inches we recommend that Flanged Valves be used.

### LIST PRICES EACH

Size, Inches	1 1/4	1 1/2	2	3	3 1/2
3814, Screwed	24.00	25.00	27.50	33.00	45.00
3815, Flanged	26.50	27.50	30.00	35.50	48.00

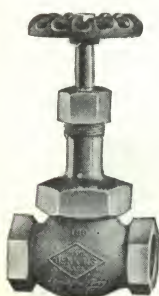
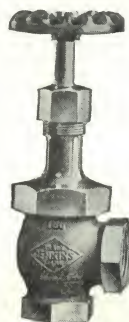
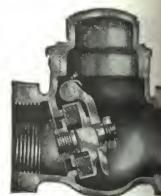
Size, Inches	4	5	6	8	10
3814, Screwed	60.00	85.00	100.00	155.00	250.00
3815, Flanged	65.00	90.00	107.00	162.00	258.00

Size, Inches	12	14	16	18	20
3814, Screwed	325.00				
3815, Flanged	335.00	440.00	675.00	890.00	10.75

DISCOUNT . . . . . 7% OFF



## GENUINE JENKINS BROS.' BRASS VALVES—Screwed

Globe  
Fig. No. 1620Angle  
Fig. No. 1625Horizontal Check  
Fig. No. 1624Cross  
Fig. No. 2411Swing Check  
Fig. No. 1634

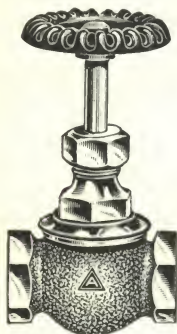
Size.....Inches	
Globe or Angle.....List Each	
Horizontal Check.....List Each	
Horizontal Check with Drip.....List Each	
Cross.....List Each	
Swing Check.....List Each	

## LIST PRICES EACH

1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
\$1.10	\$1.25	\$1.60	\$2.20	\$2.80	\$4.00	\$5.50	\$ 8.75	\$15.75	\$22.00
1.10	1.20	1.30	1.90	2.60	3.60	5.00	7.50	14.00	21.00
.....	.....	2.60	3.30	4.25	5.50	7.20	.....	.....	.....
2.25	2.65	2.95	3.30	4.25	6.25	8.20	12.50	26.25	36.00
1.75	1.75	1.90	2.75	3.75	5.20	7.20	10.75	20.25	30.00

## Discount

Globe or Angle.....	LIST PLUS 16%
Horizontal Check.....	LIST PLUS 16%
Horizontal Check, with Drip.....	8% OFF
Cross.....	LIST PLUS 11%
Swing Check.....	LIST PLUS 11%

IMITATION JENKINS DISC BRASS VALVES  
Screwed

Globe Fig. No. 1630



Check Fig. No. 1631



Angle Fig. No. 1632

Size.....Inches	
Globe or Angle.....List Each	
Check.....List Each	
Check with Drip.....List Each	
Discs.....List Each	

## LIST PRICES EACH

1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
\$1.10	\$1.25	\$1.60	\$2.20	\$2.80	\$4.00	\$5.50	\$8.75
.....	1.20	1.30	1.90	2.60	3.60	5.00	7.50
.....	.....	2.60	3.30	4.35	5.50	7.20	.....
.06	.08	.08	.10	.12	.18	.24	.30

## Discount

20% OFF

## "ALENCO" VALVE DISCS



Fig. No. 2412

The "Alenco" valve disc will withstand a maximum steam pressure of 300 pounds, and a maximum hydraulic pressure of 1,000 pounds, or superheated steam of 550 degrees. It is not affected by lyes, acids or alkalis.

## ★ NET PRICES PER HUNDRED

Size, Inch	★ NET 100	Size, Inch	★ NET 100
1/4.....	\$3.75	1 1/4.....	\$11.25
3/8.....	\$5.00	1 1/2.....	\$15.00
1/2.....	\$5.00	2.....	\$23.00
3/4.....	\$6.20	2 1/2.....	\$30.00
1.....	\$7.50	3.....	\$50.00

## JENKINS BROS.' VALVE DISCS



Fig. No. 1626

Made of hard composition which becomes tough and flexible in service when under steam pressure. It is free from cracking and flaking and has great durability.

## LIST PRICES EACH

List Each	List Each	List Each
Size, Rd. Sq. In. Hole	Size, Rd. Sq. In. Hole	Size, Rd. Sq. In. Hole
1/4.....\$0.06	2 1/2.....\$0.48	6.....\$2.00
3/8......08	3.....0.80	7.....2.40
1/2......08	3 1/2.....1.00	8.....2.80
3/4......10	4.....1.20	9.....3.60
1......12	4 1/2.....1.40	10.....4.50
1 1/4......18	5.....1.60	12.....5.00
1 1/2......24	.....	.....
2......36	.....	.....

## DISCOUNT

1/4 to 2 inch, incl....30% OFF  
2-1/2 to 12 inch....35% OFF

## JENKINS STEAM METAL VALVE DISCS

These discs are of bronze composition as used for the body metal of Jenkins Brass Valves and are suitable for working steam pressures 150 to 300 pounds. They are same size and interchangeable with the regular Jenkins (rubber) composition discs.

## LIST PRICES EACH

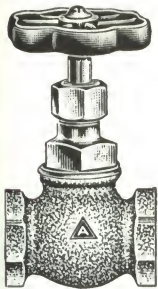
Size, In.	List Each	Size, In.	List Each	Size, In.	List Each
1/4.....	\$0.23	1 1/2.....	\$0.50	6.....	\$4.25
3/8.....	.23	2.....	.55	7.....	6.00
1/2.....	.26	2 1/2.....	1.00	8.....	6.50
3/4.....	.32	3.....	1.40	9.....	8.50
1.....	.36	3 1/2.....	2.20	10.....	9.10
1 1/4.....	.45	4.....	2.60	12.....	11.85
.....	.....	4 1/2.....	3.25	14.....	15.90
.....	.....	5.....	3.75	.....	.....

## DISCOUNT

1/4 to 1-1/2 inch....19% OFF  
2 to 14 inch....LIST PLUS 23%



STANDARD BRASS VALVES—Screwed



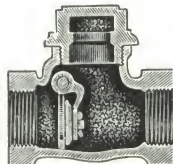
Globe  
Fig. No. 1133



Angle Fig. No. 1134



Horizontal Check  
Fig. No. 1136



Swing Check  
Fig. No. 1633



Vertical Check  
Fig. No. 4103

LIST PRICES EACH

Size, inches.....	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Globe or Angle.....	List Each	\$0.72	\$0.72	\$0.77	\$1.00	\$1.26	\$1.80	\$2.52	\$3.50	\$5.30	\$10.00
Horizontal Check.....	List Each	.65	.65	.70	.90	1.15	1.60	2.25	3.15	4.75	9.00
Horizontal Check with Drip.....	List Each	.....	.....	1.80	2.00	2.25	2.80	3.65	4.75	6.75	15.00
Swing Check.....	List Each	.....	.....	.77	1.00	1.26	1.80	2.52	3.50	5.30	10.00
Vertical Check.....	List Each	.72	.72	.77	1.00	1.26	1.80	2.52	3.50	5.30	10.00

DISCOUNT

40% OFF

MALTESE CROSS VALVES—Screwed

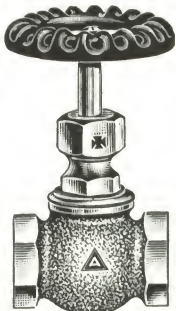


Fig. No. 1139, Globe



Fig. No. 1140, Angle

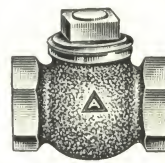


Fig. No. 1142, Horiz. Check

Best Steam Metal

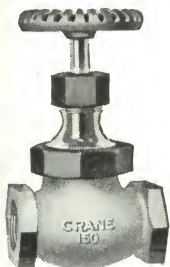
LIST PRICES EACH

Size, inches.....	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Globe or Angle.....	\$0.72	\$0.72	\$0.77	\$1.00	\$1.26	\$1.80	\$2.52	\$3.50	\$5.30	\$10.00	\$14.40
Horizontal Check.....	.65	.65	.70	.90	1.15	1.60	2.25	3.15	4.75	9.00	13.00
Horizontal Check with Drip.....	.....	.....	2.00	2.15	2.55	3.15	4.05	5.40	.....	.....	.....

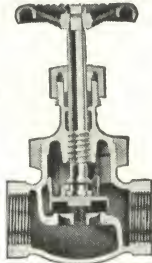
PRICE

LIST NET

CRANE RENEWABLE DISC GLOBE & ANGLE VALVES



No. 3506—Globe



No. 3506—Globe



No. 3507—Angle

LIST PRICES EACH

Size, inches.....	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
No. 3506—Globe	\$1.10	\$1.10	\$1.25	\$1.60	\$2.20	\$2.80	\$4.00	\$5.50	\$8.75	\$15.75	\$22.00
No. 3507—Angle	1.10	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00
Holder, Disc & Nut	.30	.30	.35	.40	.45	.55	.75	1.05	1.60	3.15	4.60

PRICE LIST PLUS 10%

BRASS BALL CHECK SCREWED VALVES

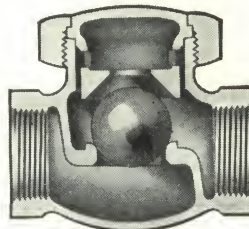


Fig. No. 2422

LIST PRICES EACH

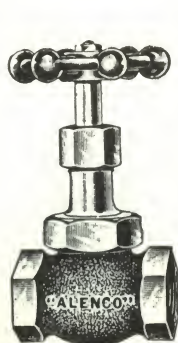
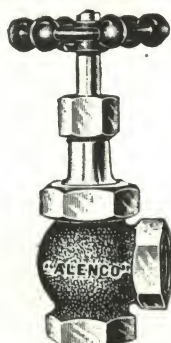
Size, Ins.	Horizontal, List Each	Horizontal with Drip, List, Each	Brass Balls, List, Each
1/8	\$1.10	\$1.50	\$0.40
1/4	1.10	1.50	.40
3/8	1.20	1.70	.60
1/2	1.60	2.00	.80
3/4	2.40	2.80	1.00
1	3.60	4.00	1.20
1 1/4	5.60	6.00	1.40

PRICE LIST PLUS 10%

Mfrs. No. 7. Brass. Union bonnet with forged brass ring. For steam working pressures up to 150 pounds. For use where discs must be changed quickly without injury to the valve. Disc holder slips onto the stem, and is accurately guided in the body. Disc may be easily removed from and replaced in this holder. Fitted with renewable steam discs, suitable for use on saturated steam pressures up to 150 pounds, unless specified for hot water service or for cold water service.



## ALENCO BRASS REGRINDING VALVES—SCREWED

Fig. No. 1145  
GlobeFig. No. 1146  
AngleFig. No. 1147  
Horiz. CheckFig. No. 1149  
Swing CheckFig. No. 2423  
Vert. Check

FOR WORKING PRESSURES UP TO 200 POUNDS

In the construction of this valve the metal is carefully distributed so as to insure the greatest strength. All parts are interchangeable. TO REGRIND: Unscrew the ring, insert a wire or cotter pin through

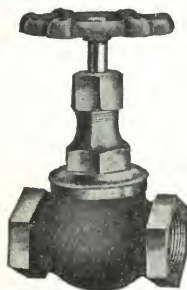
the slot of the disc lock-nut and hole in stem. Put in fine emery; mix with oil on disc; replace trimmings; start ring one or two threads and regrind.

## ★ NET PRICES EACH

Size, Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Globe or Angle	\$1.10	\$1.10	\$1.35	\$1.85	\$2.30	\$3.20	\$4.45	\$6.20	\$9.85	\$19.00	\$26.15
Horizontal Check	\$0.80	\$0.80	\$0.95	\$1.35	\$1.85	\$2.45	\$3.65	\$5.15	\$8.25	\$15.85	\$22.20
Horizontal Check with Drip			\$1.65	\$2.05	\$2.55	\$3.20	\$4.35	\$5.85	\$8.95	\$16.65	\$23.00
Cross	\$1.60	\$1.60	\$1.60	\$2.40	\$3.20	\$4.30	\$5.55	\$8.10	\$12.70	\$25.35	\$38.00
Angle or Vertical Check	\$0.80	\$0.80	\$0.95	\$1.35	\$1.80	\$2.45	\$3.65	\$5.15	\$8.25	\$15.85	\$22.20
*Swing Check	\$2.05	\$2.05	\$2.15	\$2.50	\$3.20	\$4.65	\$5.90		\$8.65	\$15.90	\$22.10

\*For working pressures up to 175 lbs.

## ASBESTOS DISC BRASS VALVES—SCREWED

Globe  
Fig. No. 1627Asbestos Discs  
Fig. No. 1628Angle  
Fig. No. 1629

## LIST PRICES EACH

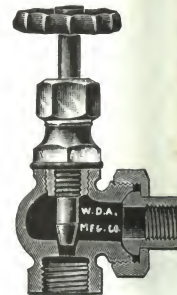
Size, Inches	Fig. 1627 Globe List Each	Fig. 1629 Angle, List Each	Asbestos Discs, List Each
1/8	\$1.10	\$1.10	\$0.24
1/4	1.10	1.10	.24
3/8	1.25	1.25	.18
1/2	1.60	1.60	.21
3/4	2.20	2.20	.26
1	2.80	2.80	.32
1 1/4	4.00	4.00	.43
1 1/2	5.50	5.50	.57
2	8.75	8.75	.80
2 1/2	15.75	15.75	1.35
3	22.00	22.00	1.80

Prices of 1/8 and 1/4 inch discs include spindles, as disc holder and spindle are one piece.

DISCOUNT ..... 14% OFF

## NEEDLE POINT BRASS VALVES

Globe, Angle and Angle with Union

Fig. No. 1164  
GlobeFig. No. 2818  
AngleFig. No. 1165  
Angle with  
Union

These valves are used for regulating fuel oil feed.

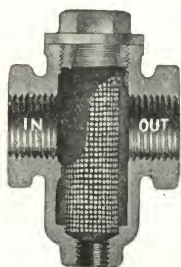
## LIST PRICES EACH

Size Pipe, Inches	Size Feed Opening, Inches	Globe or Angle, List Each	Angle with Union, List Each
1/8	1/8	\$1.20	\$2.00
1/4	1/8	1.40	2.00
3/8	1/8	1.50	2.20
1/2	1/8	2.00	3.00
3/4	1/8	2.50	4.00

DISCOUNT ..... 36% OFF

## SCREEN OR STRAINER

Fig. 1026



Prevents costly shut-downs due to foreign matter, dirt, grit and scale passing through steam, water, air and oil equipment. Protects gate, globe and reducing valves, steam traps, air hammers, air chucks, plumbing fixtures, fuel oil lines, etc. Straight passage. No obstruction for free flow in the line.

250 POUNDS, SCREWED ENDS

BRONZE, Inches	1/2	3/4	1	1 1/4	1 1/2
List, Each	\$4.00	\$4.00	\$6.00	\$8.00	\$10.00
CAST IRON	2	2 1/2	3	4	5
List, Each	\$18.00	\$25.00	\$35.00	\$45.00	\$55.00

CAST IRON, 150 POUNDS, FLANGED ENDS

Size, Inches	2	2 1/2	3	4	5	6
List, Each	\$25.00	\$35.00	\$45.00	\$60.00	\$80.00	\$105.00

DISCOUNT ..... 30% OFF



STANDARD IRON BODY VALVES—Brass Mounted



Fig. 1156—Crane 356  
Globe—Crane 354

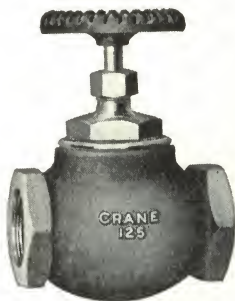


Fig. 1157—Crane 351  
With Yoke, Flanged

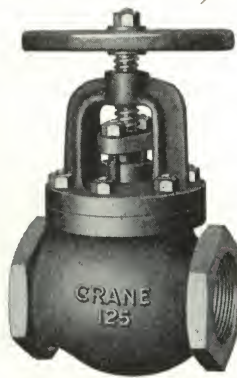


Fig. 1158—Crane 350  
With Yoke, Screwed

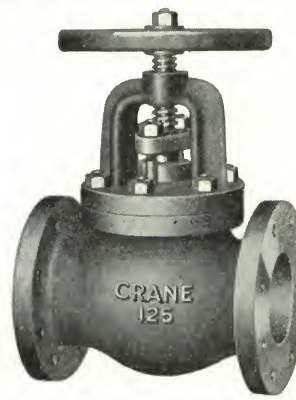


Fig. 1159—Crane 351  
With Yoke, Flanged

LIST PRICES EACH

With Brass Hub—Size, Inches.....	2	2½	3	3½	4	5	6	8	10	12	14	16
Globe or Angle, Screwed.....	\$5.40	\$7.35	\$9.80									
Cross, Screwed.....		9.00	12.50									
With Yoke—Size, Inches.....	2	2½	3	3½	4	5	6	8	10	12	14	16
Globe or Angle, Screwed.....	\$7.00	\$9.00	\$12.50	\$15.25	\$19.00	\$27.00	\$37.50	\$72.00				
Globe or Angle, Flanged.....	8.60	10.75	15.00	18.50	22.50	31.00	42.00	77.00	123.00	187.00	\$350.00	475.00
Cross, Screwed.....	8.50	11.75	16.25	20.00	23.50	35.25	47.25	92.00				
Check Valves—Size, Inches.....	2	2½	3	4	5	6	8					
Horizontal, Screwed.....	\$3.60	\$6.50	\$8.90	\$14.25	\$22.00	\$30.00	\$62.00					
Horizontal, Flanged.....			11.50	18.00	26.00	35.00						
Vertical, Screwed.....			9.50	12.50	21.00	33.00	40.00					

**DISCOUNT** { Brass Mounted, Screwed.....LIST PLUS 21%  
With Yoke, Screwed or Flanged.....LIST PLUS 6%

GENUINE JENKINS BROS.' IRON BODY VALVES—Composition Mounted

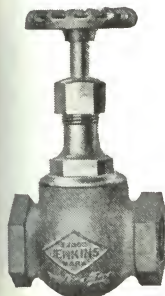


Fig. No. 1153  
Without Yoke, Screwed

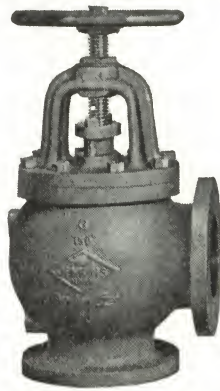


Fig. No. 1154  
With Yoke, Flanged

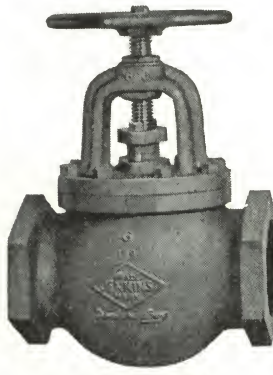


Fig. No. 1155  
With Yoke, Screwed



Fig. No. 2424  
Horiz. Check, Screwed

LIST PRICES EACH

Valves—Size, Inches.....	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Globe or Angle, Screwed, with Brass Hub.....	\$13.20												
Globe or Angle, Screwed, with Yoke.....	10.00	\$12.00	\$16.75	\$19.50	\$24.00	\$32.00	\$40.00	\$48.00	\$80.00	\$90.00	\$121.00	\$130.00	\$185.00
Globe or Angle, Flanged, with Yoke.....	11.75	14.00	18.50	21.50	26.00	34.00	42.00	50.00	80.00	90.00	121.00	130.00	185.00
Cross, Screwed, with Yoke.....	27.00	30.00	40.00	50.00	56.00	79.00	84.00	109.00	170.00	188.00			
Cross, Flanged, with Yoke.....	31.00	35.00	45.00	55.00	62.00	85.00	90.00	116.00	170.00	188.00			
Check Valves—Size, Inches.....	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Horizontal Check, Screwed.....	\$10.00	\$13.75	\$17.50	\$21.25	\$25.00	\$31.25	\$37.50	\$50.00	\$81.00	\$100.00			
Horizontal Check, Flanged.....	12.50	16.25	20.75	25.00	28.75	35.00	41.25	54.00	81.00	100.00			
Swing Check, Screwed.....	22.00	22.00	25.00	32.00	37.00								
Swing Check, Flanged.....	26.00	26.00	30.00	37.00	43.00								

Globe or Angle, With Brass Hub.....LIST LESS 5%  
Globe or Angle, With Yoke.....LIST PLUS 22%  
Cross.....LIST PLUS 22%  
Horizontal Check, Screwed or Flanged, 2 to 3-1/2 inch.....LIST LESS 11%  
Horizontal Check, Screwed or Flanged, 4 to 8 inch.....LIST PLUS 9%  
Swing Check, Screwed 2 to 3-1/2 inch.....LIST LESS 45%  
Swing Check, Screwed 4 to 10 inches.....LIST LESS 41%  
Swing Check, Flanged, 2 to 6 inches.....LIST LESS 33%  
Swing Check, Flanged, 8 to 12 inches.....LIST LESS 28%

**DISCOUNT**



## BRASS GATE VALVES

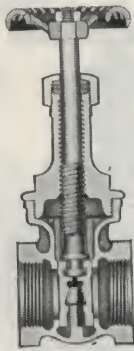
Made of high grade steam metal, with screwed ends only.



Standard  
Double Disc  
Fig. 1173



"Alenco"  
Double Disc  
Fig. 1174



Rising Stem  
Double Disc  
Fig. 5213



Jenkins Bros.  
Solid Wedge  
Fig. 370-J

## LIST EACH

Size Inches	LIST EACH
1/4	\$1.45
3/8	\$1.45
1/2	\$1.65
3/4	\$2.05
1	\$2.80
1-1/4	\$3.70
1-1/2	\$5.00
2	\$7.30
2-1/2	\$13.00
3	\$19.00

## DISCOUNTS

Fig. 1173 Standard Double Disc	40% OFF
Fig. 1174 'Alenco' Double Disc	
1/4 to 3/8 Inch	LIST PLUS 67%
1/2 Inch	LIST PLUS 61%
3/4 Inch	LIST PLUS 47-1/2%
1 to 3 Inch	LIST PLUS 58-1/2%
Fig. 5213 Rising Stem Double Disc	
Crane No. 440	23% OFF
Fig. 370-J Jenkins Bros. Solid Wedge	
	18% OFF
Jenkins Rising Stem Brass Gate Valve,	
Mfrs. 47, Not Illustrated	22% OFF

QUICK OPENING  
BRASS GATE VALVES

WORKING PRESSURES: Steam up to 125 pounds, (Fig. 5212, 2-1/2 and 3 inch 100 pounds); Water, Oil, or Non-shock Gas 200 pounds; (Fig. 5212, 2-1/2 and 3 inch 100 pounds).



Fig. 5212  
Cam Action

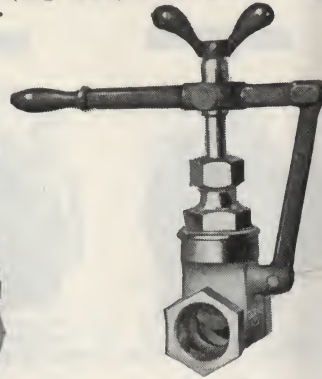


Fig. 1641  
Sliding Stem

Fig. 5212 CAM ACTION VALVES. Solid wedge disc operates with a quick opening lever through a cam action. Fast and positive.

Fig. 1641 SLIDING STEM VALVES. Parallel seats, sliding stem and double disc. A short lever movement operates the valve. Wing nut permits forcing (or releasing) discs to the seats after closing valve.

Inches	5212	1641	Inches	5212	1641
1/2	\$6.50	...	1-1/2	\$17.00	\$8.50
3/4	\$7.50	\$3.60	2	\$26.00	\$11.80
1	\$10.00	\$4.80	2-1/2	\$45.00	\$20.20
1-1/4	\$13.00	\$6.20	3	\$65.00	\$30.00
Fig. 5212 Cam Action ..... 53% OFF					
Fig. 1641 Sliding Stem ..... 10% OFF					

JENKINS STANDARD IRON BODY  
BRONZE MOUNTED GATE VALVES

FOR 125 POUNDS STEAM WORKING PRESSURE; FOR 200 POUND OIL, WATER, GAS, WORKING PRESSURE.

Bodies and bonnets are made of high test iron. Spindles and seat rings are made of bronze. Wedges up to 3 inch are cast of solid bronze; 2 1/2 inch and larger are iron with bronze faces rolled in.



Fig. 2957

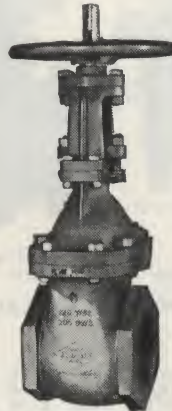


Fig. 4411

INSIDE SCREW  
STATIONARY SPINDLE

Size Inches	Screwed LIST EACH	Flanged LIST EACH
2	\$10.00	\$12.00
2 1/2	11.50	13.50
3	14.00	16.50
3 1/2	17.00	19.50
4	19.00	23.00
4 1/2	24.00	28.00
5	27.50	31.50
6	32.50	36.50
7	45.00	49.00
8	54.00	58.00

DISCOUNT ..... 9% OFF

OUTSIDE SCREW AND YOKE  
RISING SPINDLE

Size Inches	Screwed LIST EACH	Flanged LIST EACH
2	\$19.00	\$21.00
2 1/2	20.50	22.50
3	23.50	26.00
3 1/2	27.00	29.50
4	32.50	36.50
4 1/2	40.00	44.00
5	45.00	49.00
6	52.00	56.00
7	69.00	73.00
8	86.00	90.00

DISCOUNT ..... 9% OFF

JENKINS TWIN-BOLT  
GATE VALVES

Fig. 4765

Rugged and efficient. Twin-bolt design with two square head steel bolts, prevents distortion of the body through tightening. Wedge is sharply tapered and reversible. Large stuffing box nut. High grade gray iron body. All valves can be repacked under full pressure when in open or closed position.

Mfrs. 40 All Iron, Screwed.

Mfrs. 41 All iron, flanged.

For general service and for line carrying solutions that are injurious to brass such as weak acid alkalines, caustics, brine, etc. Steel spindle.

Mfrs. 42. Bronze Mounted, screw

Mfrs. 43. Bronze Mounted, flanged

For general service and for line carrying steam, hot or cold water, oil, gas, air, etc. Brass seat ring. Bronze spindle.

Size	3/8	1/2	3/4	1	1-1/2
No. 40	\$3.50	\$3.50	\$3.90	\$4.30	\$5.00
No. 42	3.20	3.20	3.60	4.00	5.00
Size	1-1/2	2	2-1/2	3	4
No. 40	\$7.00	\$10.00	\$17.70	\$22.00	\$45.00
No. 42	6.80	10.00	18.00	22.50	50.00
No. 41	15.00	18.00	26.20	29.50	50.00
No. 43	15.00	18.00	26.50	30.00	55.00

DISCOUNTS		
No. 40	3/8 to 1 inch	39 -20% OFF
No. 40	1 1/4 to 2 inch	36 -20% OFF
No. 40	2 1/2 to 4 inch	40 -20% OFF
No. 42	3/8 to 2 inch	33 1/2 -20% OFF
No. 42	2 1/2 to 4 inch	40 -20% OFF
No. 41	1 1/4 to 3 inch	50 1/2 -20% OFF
No. 41	3 1/2 to 4 inch	40 -20% OFF
No. 43	1 1/4 to 3 inch	50 1/2 -20% OFF
No. 43	3 1/2 to 4 inch	40 -20% OFF



**"ALENCO" LEVER THROTTLE VALVES****Special Heavy Pattern for High Pressures**

Screw ends only, not made with flange ends. Brass for 200 lbs. pressures, iron for 150 lbs. pressures.



Fig. 1637

**BRASS BODY**

Size Inches	★ NET EACH
3/4	\$4.30
1	\$5.70
1-1/4	\$7.15
1-1/2	\$10.00
2	\$14.30
2-1/2	\$27.15
3	\$41.50



Fig. 1638

**IRON BODY BRASS MOUNTED**

Size Inches	★ NET EACH
2	\$22.70
2-1/2	\$38.45
3	\$48.05
3-1/2	\$60.10
4	\$72.10
5	\$84.10
6	\$96.10

**WESTERN PATTERN THROTTLE VALVES**

Brass body and iron body, brass mounted. Screw ends only, not made with flange ends. For pressures not exceeding 100 pounds.



Fig. 1639

**BRASS BODY**

Size Inches	★ NET EACH
1/2	\$2.35
3/4	\$2.65
1	\$3.70
1-1/4	\$5.15
1-1/2	\$7.40
2	\$11.05
2-1/2	\$19.90
3	\$28.00
3-1/2	\$59.00
4	\$88.50



Fig. 1640

**IRON BODY BRASS MOUNTED**

Size Inches	★ NET EACH
2	\$10.15
2-1/2	\$16.20
3	\$20.25
3-1/2	\$24.30
4	\$28.35
4-1/2	\$33.75
5	\$40.50
6	\$47.25

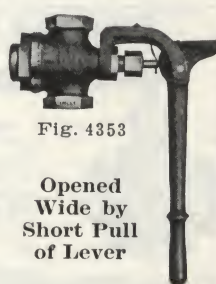
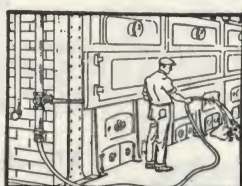
**JENKINS RAPID ACTION VALVES FOR HOT OR COLD WATER**

Fig. 4353

Opened Wide by Short Pull of Lever



Opened or closed instantly. It stays open automatically. Closes without water-hammer, no strain or no annoyance. Hand lever when given quarter pull bears on the end of the spindle, which pushes disc off seat and opens the valve, the lever aligning with the spindle positively holds the valve open. A slight push on the lever will throw it out of alignment with the spindle, and the disc is then immediately forced on seat. The closing of disc on seat is regulated to avoid water-hammer by a combination of spring, piston, and water pressure. High grade bronze. Renewable composition disc. Manganese bronze spindle with hardened steel anti-friction point. Forged steel yoke. Malleable iron lever. Valve can be set in any position as yoke and lever are adjustable.

Size Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
List Each	\$7.00	\$9.00	\$10.00	\$12.00	\$15.00	\$20.00	\$28.00
Extra Disc and Holder	.70	.95	1.05	1.20	1.60	2.30	2.95

PRICE ..... LIST NET

**JENKINS BRONZE QUICK OPENING VALVES**

Fig. 4355 Globe Fig. 4356 Angle

Standard. Spindle and bonnet is quadruple threaded with a thread of coarse pitch. Valve can be opened full with about a quarter of the usual turns. With lever handles.

Size Inches	Turns To Open	List Each
1/2	3/8	\$ 3.00
3/4	1	3.60
1	1 1/4	4.50
1 1/4	1 1/2	6.20
1 1/2	2	8.20
2	2 1/4	12.00

DISCOUNT ..... 6% OFF

**JENKINS RAPID ACTION VALVES**

FOR STEAM AIR, OR GAS

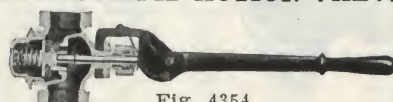


Fig. 4354

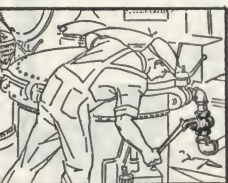
Spring closing valve. Yoke and lever for hand operation. Opened by a short pull of lever which bears on end of spindle, forcing disc holder off the seat. High grade bronze. Spindle of manganese bronze with steel tip. Yoke is forged steel. Malleable iron lever. For steam, air or gas; for special service specify conditions and suitable composition disc will be fitted.

Opened Wide by Short Pull of Lever



Size Inch	List Each
1/2	\$ 7.00
3/4	9.00
1	10.00
1 1/4	12.00
1 1/2	15.00
2	20.00

DISCOUNT 29% OFF



Illustrating Use With Cooking Vats



# GENUINE JENKINS BROS.' Y OR BLOW-OFF VALVES



Fig. No. 1654

## Brass

For steam working pressure up to 150 pounds. Fitted with Jenkins discs and renewable seat rings. Also used to handle thick liquids in sugar refineries, pulp and paper mills, chemical works, etc.

### LIST PRICES EACH

Size, In.	LIST EACH		Flange Diam., In.
	Screwed	Flanged	
3/4	\$ 3.00	.....	3 1/2
1	3.00	\$ 7.50	3 3/4
1 1/4	4.50	10.50	4 1/2
1 1/2	6.00	13.50	4 3/4
2	7.50	16.50	5 1/2
2 1/2	9.75	19.50	6
3	14.00	30.00	7
3 1/2	27.00	42.00	7 1/2
4	37.00	55.50	7 3/4

PRICE .. LIST PLUS 2%



Fig. No. 2710

## Iron Body—Composition Mounted

For steam working pressure up to 150 pounds. Fitted with renewable seat rings. Sizes 2, 2 1/2 and 3 inches have yoke; sizes 3 1/2 inches and larger have bolted bonnets.

### LIST PRICES EACH

Size, In.	LIST EACH		Flange Diam., In.
	Screwed	Flanged	
.....	.....	.....	6
.....	.....	.....	7
.....	.....	.....	7 1/2
.....	.....	.....	.....
.....	.....	.....	.....
2	\$16.00	\$19.00	6
2 1/2	22.00	27.00	7
3	29.00	34.00	7 1/2



SKINNER VALVE RE-SEATING TOOLS

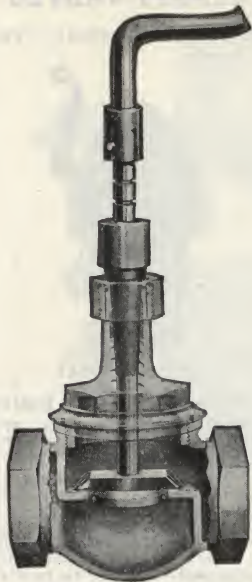


Fig. No. 1132

For reseating all flat and taper seat, globe or angle valves, in place, accurately, quickly. The tool lines up through the valve bonnet and has a ball bearing guide for each size valve to set down into the port and form a lower guide.

Parallel-bladed, bar-type shear cutters are used, the two outer blades giving an offset shaving cut. Cutters are made of Swedish steel, skillfully hardened, and stay sharp for years. Bit brace operation insures a full swing cut. This tool is packed in a fine hardwood case and guaranteed.

Two or three old valves put back to work pay for the set.

For 1/2 to 2 inch valves.  
★ NET SET, \$20.00

For 1/2 to 3 inch valves.  
★ NET SET, \$30.00

Please mention when tools are to be used on Fairbanks, Pratt & Cady or Western valves, as the cutters have to be shorter.



Fig. No. 3508

Regular straight lever type. Is opened and closed by a short wrench which travels in an arc of about 80°. Easily operated. Nominal working pressure, 250 pounds. Iron body.

**LIST PRICES EACH**

Inches	1/4	3/8	1/2	3/4
Screwed	\$ 9.00	\$ 9.00	\$ 9.00	\$11.00
Flanged				
Inches	1	1 1/4	1 1/2	2
Screwed	\$11.00	\$16.00	\$22.00	\$25.00
Flanged	15.00	19.00	26.00	30.00
Inches	2 1/2	3	4	
Screwed	\$32.00	\$44.00	\$60.00	
Flanged	39.00	50.00	70.00	

**DISCOUNT 15% OFF**

SKINNER "COMBINED" RESEATING TOOL

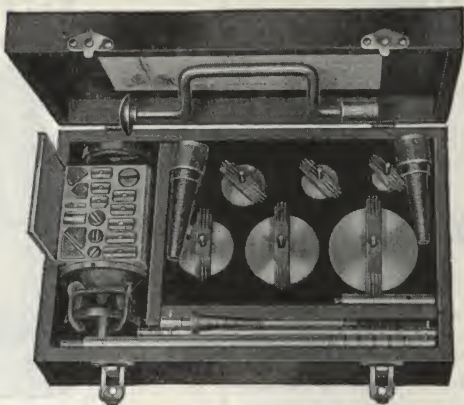


Fig. No. 3297

A complete valve reseating tool and a utility reseater packed in one box. For reseating all fixtures, valves, faucets, cocks, or bibbs from 1/4 in. to 3 in. inclusive, flat, taper, or oval seat. The one complete reseating tool with bar cutters and screw feed throughout. Clean accurate work is guaranteed. Plumbers, as well as hotel, office building, hospital and apartment house engineers need these tools. Packed in hardwood case.

★ NET EACH, \$45.00

EXPANSION JOINTS

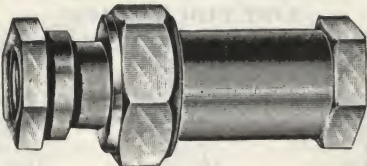


Fig. No. 1643

**All Brass, Screwed Ends**

For steam working pressures up to 125 pounds. Furnished not packed.

**LIST PRICES EACH**

Size, In.	Trav., In.	List Each	Size, In.	Trav., In.	List Each
1/4	2	\$1.50	1 1/2	2 1/2	\$5.00
3/4	2 1/4	2.20	2	2 1/2	8.00
1	2 1/4	3.00	2 1/2	2 1/2	14.00
1 1/4	2 1/4	4.00	3	2 1/4	21.00

**DISCOUNT 20% OFF**

BARCO FLEXIBLE JOINT

Used for oil, steam, air, gasoline, tar, water, and other gases and liquids. Bronze balls. For normal steam and hydraulic pressures. Prices for high pressures on request.

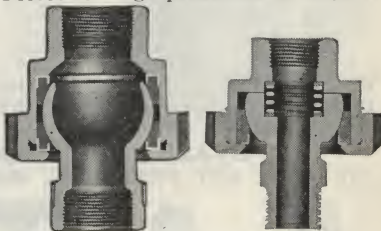


Fig. 1130. Ball Joint. Gives flexibility in any direction.

Fig. 4591. Swivel Joint. Up to 1 1/4 inch. Permits a 360 degree Swivel Movement with no tendency to bind where side play is slight. Stainless Steel Springs eliminates leaking under alternating steam and cold water.

LIST PRICES EACH

Iron Pipe Inch	90°		Angle Both Ends
	Straight Joint	Angle 1 End	
1/4	\$ 7.50	\$ 8.00	\$ 8.50
3/8	7.50	8.00	8.50
1/2	7.50	8.00	8.50
3/4	8.80	9.30	10.00
1	9.90	10.40	11.25
1 1/4	12.30	12.80	13.80
1 1/2	14.00	14.50	15.50
2	17.50	19.50	20.20
2 1/2	21.00	23.00	24.00
3	27.50	32.00	36.50
4	46.20	53.75	61.30
5	68.60	....	....
6	78.40	....	....

DISCOUNTS

Malleable, 1/4 to 2 in...50% OFF

Malleable, 2 1/2 in...25% OFF

Malleable, 3 in. ....LIST NET

Cast Iron, 4 to 6 in...25% OFF

Bronze, 1/4 to 1/2 in...30% OFF

Bronze, 3/4 to 2 in...20% OFF

When ordering, please specify whether male or female ends are wanted.

Angle one end can be furnished 45 degrees or 90 degrees. Please specify which is wanted.

Please specify whether bronze, malleable or cast iron joints are wanted. Joints made as follows:

MALLEABLE—1/4 to 2 1/2 inches.

CAST IRON—3 to 6 inches.

BRONZE—1/4 to 2 inches.

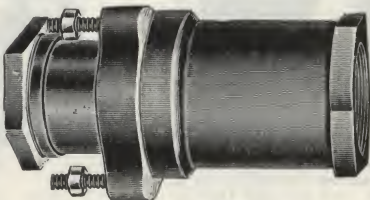


Fig. No. 1642

**Iron Body, Brass Sleeve**

For steam working pressures up to 125 pounds. Furnished not packed.

**LIST PRICES EACH**

Size, In.	Flange Diam., In.	Traverse, In.	Screwed, List Each	Flanged, List Each
1 1/4	5	2 1/2	\$ 6.25	\$13.75
2	6	2 1/2	7.00	15.00
2 1/2	7	2 1/2	8.00	16.00
3	7 1/2	2 1/2	10.00	18.50
3 1/2	8 1/2	3	14.00	25.00
4	9	3 1/4	18.00	30.00
5	10	4	38.00	48.00
6	11	5	42.50	55.00
8	13 1/2	7	90.00	90.00
10	16	7	....	135.00
12	19	8	....	190.00

**DISCOUNT, Screwed...20% OFF**

**DISCOUNT, Flanged...31% OFF**



### PORTABLE POP SAFETY VALVES

FOR STEAM OR AIR



Top Outlet

Fig. No. 1649



Side Outlet

Fig. No. 1650

Made of best non-corrosive bronze steam, metal. Standard type for use on stationary, traction and portable engines and boilers. Carried in stock set at 100 pounds pressure, also 125 pounds. Can be furnished set at any pressure up to 200 pounds in about 2 weeks. Furnished with a lock-up at a small additional expense.

#### LIST PRICES EACH

Size, Inches	Top Outlet List Each	Side Outlet List Each
1/4	\$ 8.00	\$10.00
3/8	8.00	10.00
1	10.00	12.00
1 1/4	12.00	15.00
1 1/2	15.00	18.00
2	23.00	27.00
2 1/2	38.00	43.00

FOR STEAM ..... 50% OFF  
FOR AIR ..... 40% OFF

### AMERICAN POP SAFETY VALVE

FOR STEAM



Fig. No. 1652

Model JRT. For fire tube boilers. Suitable for pressures up to 250 pounds. Iron body, bronze mountings. Sharp positive action. High grade materials and workmanship. Inlet flanges furnished extra heavy dimensions only and drilled only when so ordered at extra cost. When ordering state pressure at which valve is wanted to set relief.

#### LIST PRICES EACH

Size, Inches	Bronze Seat, List Each	Nickel Seat, List Each
2	\$ 35.00	\$ 42.00
2 1/2	42.00	50.00
3	50.00	60.00
3 1/2	68.00	80.00
4	75.00	90.00
4 1/2	100.00	116.00

DISCOUNT ..... 44% OFF

### LOW PRESSURE POP SAFETY VALVES

FOR LOW PRESSURE STEAM



Fig. No. 1644

#### For House Heating Boilers

Set and sealed at any pressure ordered up to 30 pounds, after which it cannot be adjusted.

#### For Vapor Systems

Set and sealed at any pressure ordered 1 1/2 to 3 pounds, after which it cannot be adjusted.

All sizes fitted with malleable iron bases. Sizes 1/2 to 2 inch inclusive are equipped with rustproof steel cases; larger sizes have lacquered brass cases.

#### LIST PRICES EACH

Size, In.	List Each	Size, In.	List Each
1/2	\$5.00	2	\$11.25
3/4	5.25	2 1/2	26.00
1	6.00	3	37.50
1 1/4	6.75	3 1/2	50.00
1 1/2	8.25	4	80.00

DISCOUNT ..... 70% OFF

### BRASS RELIEF VALVES

SPECIFY SET PRESSURE, SIZE AND STYLE



Fig. 2600C



Fig. 2601C



Fig. 2605C



Fig. 1128C

FOR STEAM AND LIQUIDS. These relief valves may be set for any steam pressure specified from 5 to 250 pounds provided the maximum temperature does not exceed 400° F.; and for liquid pressures from 5 to 300 pounds when the temperature does not exceed 100° F. NOT FOR AIR. Valves set for any specific pressure may be adjusted for a variation of pressures 20% above or below. Relief valves for steam service should always be set at least 10% higher than the normal working pressure in the system. On liquid service, they should be set at a pressure 25% above the normal working pressure in the system.

2600C. Male inlet. Top Outlet. With Cap.  
2601C. Male inlet. Side Outlet. With Cap.  
2602C. Male inlet. Side Outlet. With Wheel.  
2603C. Male inlet. Side Outlet. With Lock-up Cap.  
2604C. Female inlet. Side Outlet. With Cap.  
2605C. Female inlet. Side Outlet. With Wheel.

#### LIST EACH

Inlet	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Outlet	1/2	1/2	3/4	1	1-1/4	1-1/2	2
2600C	\$13.50	\$13.50	\$14.50	\$17.50	\$20.00	\$25.00	\$35.00
2601C	\$13.75	\$13.75	\$15.00	\$18.25	\$21.00	\$26.50	\$37.00
2602C	\$13.50	\$13.50	\$14.50	\$17.50	\$20.00	\$25.00	\$35.00
2603C	\$15.00	\$15.00	\$16.50	\$20.00	\$23.00	\$29.00	\$40.00
2604C	\$13.75	\$13.75	\$15.00	\$18.25	\$21.00	\$26.50	\$37.00
2605C	\$13.50	\$13.50	\$14.50	\$17.50	\$20.00	\$25.00	\$35.00

DISCOUNT ..... 63% OFF

1128C HYDRAULIC RELIEF VALVES. Specify pressure 300 to 6000 pounds. Specify Size, 1/2 to 2-1/2 inch. Prices on request.

### STANDARD SAFETY VALVES—Screwed

FOR WORKING PRESSURES  
15 TO 100 POUNDS STEAM

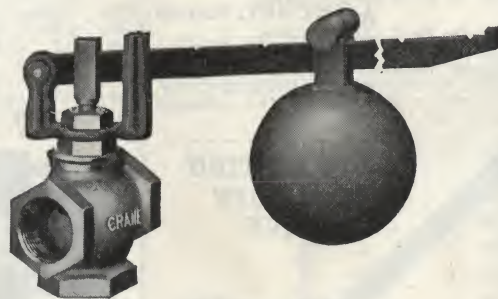


Fig. No. 1648

For steam working pressures up to 100 pounds. Intended to be set at 10 to 20 per cent higher than working pressure to prevent leakage. Furnished with screwed ends only.

#### BRASS BODY—LIST EACH

SPECIFY the set pressure wanted: 15 to 40 pounds, or 41 to 100 pounds.

Size, Inches	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Cross, Brass	\$2.20	\$2.50	\$3.25	\$3.90	\$4.70	\$7.15	\$9.00	\$12.50
Angle, Brass	.....	\$2.50	\$3.25	\$3.90	\$4.70	\$7.15	\$9.00	\$12.50
Center To End	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2 1/2	2 1/2	2 1/2
Center To Top	2 3/4	3 1/4	3 1/4	3 1/4	4 1/4	5	5	5
Cen. To Lever End	7 1/2	7 1/2	10 1/2	12 1/2	16 1/4	16 1/4	18 1/2	17 1/2

#### IRON BODY—LIST EACH

SPECIFY the set pressure wanted: 15 to 30 pounds, or 31 to 100 pounds.

Size, Inches	1-1/4	1-1/2	2	2-1/2	3	4
Cross, Iron	\$5.00	\$5.80	\$7.80	\$13.25	\$17.25	\$28.75
Center To End	2	2-3/8	3-1/4	3-1/2	4	5
Center To Top	14-1/2	17-1/2	17	17-1/4	22-1/2	23-1/2
Center To Lever End	18	22-1/4	21-1/4	27-3/4	35-1/2	42-3/4

DISCOUNT ..... 9% OFF



STANDARD IRON BODY BACK PRESSURE VALVES



Fig. 1167. Horizontal



Fig. 1168. Vertical

Brass trimmings. Weighted for any back pressure up to 5 pounds.

LIST PRICES EACH

Size, Inch	Horizontal Screwed, LIST EACH	Horizontal Flanged, LIST EACH	Vertical Screwed, LIST EACH	Vertical Flanged, LIST EACH	Flanged Face to Face, Inch	Screwed End, Inch
2	.....	.....	\$11.00	.....	.....	6-1/2
2-1/2	.....	.....	\$13.00	.....	.....	7
3	.....	.....	\$15.00	.....	.....	8
3-1/2	.....	.....	\$19.00	.....	.....	9
4	\$22.50	\$26.00	\$22.50	\$26.00	11-1/2	10
5	\$33.50	\$37.00	\$33.50	\$37.00	13	11-1/4
6	\$43.00	\$47.00	\$43.00	\$47.00	14	12-1/2
8	.....	\$90.00	.....	\$90.00	19-1/2	.....
10	.....	\$130.00	.....	\$130.00	24-1/2	.....
12	.....	\$200.00	.....	\$200.00	27-1/2	.....

PRICE.....LIST PLUS 6%

DAVIS NOISELESS BACK PRESSURE VALVE

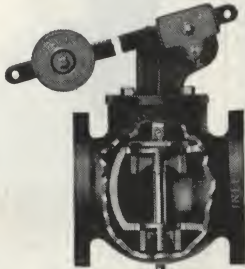


Fig. No. 1169

Counterweighted semi-balanced type. For exhaust steam pressures up to 20 pounds maximum as specified. Automatically regulates the pressure of exhaust steam. Will not stick. May be used horizontal or vertical. SPECIFY BACK PRESSURE.

LIST PRICES EACH

Size Inches	Screwed	Standard Flanged	Size Inches	Face to Face, Ins.	Standard Flanged
2	\$ 54.00	\$ 60.00	10	..	\$ 300.00
2 1/2	64.00	70.00	12	22	400.00
3	74.00	80.00	14	24 1/2	600.00
3 1/2	84.00	90.00	16	27 1/2	800.00
4	100.00	106.00	18	29 1/2	1000.00
5	126.00	132.00	20	30 1/2	1200.00
6	150.00	156.00	24	38	1600.00
8	.....	230.00			

DISCOUNTS

2 to 4 Inch.....	68% OFF
5 to 12 Inch.....	57% OFF
14 Inch and Over.....	60% OFF

DAVIS BALANCED VALVES—With Lever FOR WORKING PRESSURES UP TO 250 POUNDS

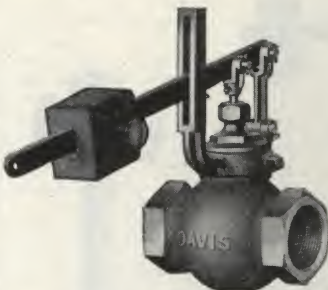


Fig. 1170S. Screwed

For steam, air, gas, water, etc. This balanced control valve must be operated by some force acting on the lever. It has a double seated piston disc which does not close absolutely tight. It should only be used where there is no objection to a slight leakage. The Davis single seated Fluid Control Valve is recommended when a tight closing valve is required.

The Balanced Valve has the lever and guide mounted on a swivel head, so the lever may be placed in any position.

The valve movement may be limited if desired by stops inserted in the guide.

Sizes 1 1/2 inch and smaller are bronze valve. Sizes 2 inches and larger are iron body, bronze trim.

LIST EACH

Size Inches	Screwed List	Standard Flanged
1/2	\$ 20.00	.....
3/4	20.00	.....
1	25.00	.....
1 1/4	30.00	.....
1 1/2	35.00	.....
2	40.00	\$ 45.00
2 1/2	50.00	55.00
3	60.00	65.00
3 1/2	80.00	85.00
4	100.00	105.00
5	.....	150.00
6	.....	175.00
8	.....	250.00
10	.....	350.00
12	.....	500.00
14	.....	650.00

DISCOUNT .....45% OFF



Fig. 1170F. Flanged

BALANCED VALVES—With Tank Float

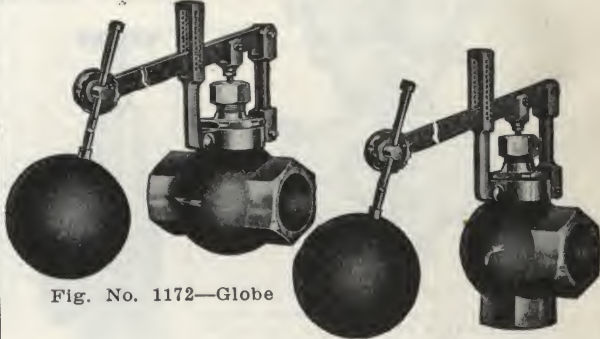


Fig. No. 1172—Globe

Fig. No. 1171—Angle

For cold water working pressure up to 200 pounds. Valves for hot water made to order. Sizes 3/4 to 1 1/2 inch are made of brass; sizes 2 inch and larger have iron body with brass valve, seats and trimmings. Screwed up to 2 inch; either screwed or flanged 2 1/2 to 6 inch; and flanged only, 8 inch and larger.

LIST EACH. GLOBE OR ANGLE

Size Inches	Stand. Screwed	Stand. Flanged	Size Inches	Stand. Screwed	Stand. Flanged
3/4	\$30.00	.....	3	\$ 80.00	\$ 85.00
1	30.00	.....	3 1/2	95.00	100.00
1 1/4	30.00	.....	4	110.00	115.00
1 1/2	35.00	.....	5	160.00	165.00
2	38.00	.....	6	190.00	195.00
2 1/2	45.00	.....	8	.....	305.00
3	50.00	\$55.00	10	.....	390.00
4	65.00	70.00	12	.....	540.00

DISCOUNT .....45% OFF



### WATSON STEAM REDUCING VALVE

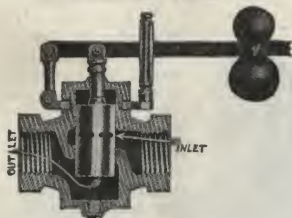


Fig. No. 1182

For maintaining a steady low steam pressure on heating systems or other steam lines. For boiler pressure of 200 lbs. or less, reducing to any pressure from 1 to 25 or 30 lbs. on low pressure side. No packing is used anywhere. The only movable part is the piston, which can be taken out and cleaned without disconnecting the pipe. Simple to use and care for.

In ordering, always state both the initial and delivery pressures.

#### LIST PRICES EACH

Brass With Screwed Ends		Iron Body, Brass Lined With Flanged Ends	
Size, Inches	List Each	Size, Inches	List Each
1/2	\$16.00	2	\$44.00
3/4	16.00	2 1/2	60.00
1	20.00	3	75.00
1 1/4	25.00	4	100.00
1 1/2	32.00	5	125.00
2	44.00	6	160.00

Price { Brass . . . LIST PLUS 5%  
Iron, 2 inch LIST PLUS 5%  
Iron, 2 1/2 in. & up 15% OFF

### WATSON DIAPHRAGM REDUCING VALVE

NOT  
FOR  
DEAD  
END  
SERVICE

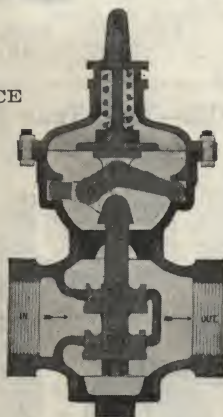


Fig. No. 1183

For reducing steam pressure from 200 lbs. or less to any low pressure from 20 lbs. to 100 lbs. Made with balanced valves, controlled by a metal diaphragm and compound levers. Operates without friction and has long life.

In ordering, always state the initial and delivery pressures.

#### LIST PRICES EACH

Brass With Screwed Ends		Iron Body, Brass Fitted With Flanged Ends	
Size, Inches	List Each	Size, Inches	List Each
3/4	\$23.00	2	\$50.00
1	26.00	2 1/2	72.00
1 1/4	33.00	3	90.00
1 1/2	40.00	4	120.00
		5	145.00
		6	195.00
		8	260.00

Price { Brass . . . LIST PLUS 5%  
Iron, 2 inch LIST PLUS 5%  
Iron, 2 1/2 in. & up 15% OFF

### WATSON LOW PRESSURE REDUCING VALVE

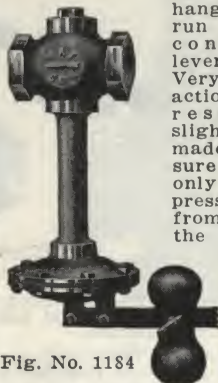


Fig. No. 1184

Made with balanced valves and a rubber diaphragm hanging below the run of the pipe, controlled by a lever and weight. Very sensitive in action and quick to respond to the slightest change made on low pressure side. Should only be used for pressure wanted from 1 to 25 lbs. on the outlet.

In ordering, always state both the initial and delivery pressures.

#### LIST PRICES EACH

Brass Screwed Ends		Iron Body, Brass Fitted Flanged Ends	
Size, Inches	List Each	Size, Inches	List Each
1/2	\$16.00	2	\$44.00
3/4	16.00	2 1/2	60.00
1	20.00	3	75.00
1 1/4	25.00	4	100.00
1 1/2	32.00	5	125.00
		6	160.00
		8	215.00

Price { Brass . . . LIST PLUS 5%  
Iron, 2 inch LIST PLUS 5%  
Iron, 2 1/2 in. & up 15% OFF

### WATSON WATER RELIEF VALVE



Fig. No. 2467

Will open at the slightest increase in pressure and close almost instantly, when the excess is relieved. To be used in connection with the Watson Reducing Valve when used for reducing water pressure, where they act as safety valves to prevent an accumulation of pressure on the light side due to the expansion of water when heated with water back in range or heater, so that the pressure on the pipes can never rise above what it is set at by the Reducing Valve. This prevents any accident to the pipes when water is not in actual use.

They are also adapted for use on steam pumps, engine cylinders, feed water heaters, elevator tanks.

#### LIST PRICES EACH

All Brass, with Screwed Ends	
Size, Inches	List Each
1/2	\$6.00
3/4	8.00
1	10.00
1 1/4	12.00

DISCOUNT . . . . . 33 1/3% OFF

### WATSON WATER REDUCING VALVE



Fig. No. 1185

Made for reducing water pressure of 200 lbs. or less to any pressure desired not less than 25 lbs. Carried in stock with springs suitable for pressure up to 200 lbs. and will reduce to any low pressure desired from 25 to 50 lbs. Valves for other pressures made to order. When used with a water-back or hot water boiler, relief valve should be used.

In ordering, always state the initial and delivery pressures.

Brass Screwed Ends		Iron Body, Brass Fitted Flanged Ends	
Size, Inches	List Each	Size, Inches	List Each
1/2	\$12.00	3	\$85.00
3/4	12.00	4	100.00
1	14.00	5	125.00
1 1/4	16.00	6	160.00
1 1/2	22.00	8	215.00
2	35.00		
2 1/2	63.00		

Price { Brass . . . . . 10% OFF  
Iron . . . . . 15% OFF

### WATSON WATER, AIR & GAS REDUCING VALVES

Style "B."  
Fig. No. 2158Style "C."  
Fig. No. 2160

Style "B." Made for use on water, air or gas. For reducing from an initial pressure not above 200 lbs. and to maintain any pressure wanted between 1 and 25 lbs., or the reduced side.

Style "C." For high temperature air, gas or water reducing from an initial pressure not above 200 lbs. to any pressure between 5 and 50 lbs. From low pressure side a connection must be made to diaphragm by a small pipe, thus making action very sensitive.

Use a screen with these valves. In ordering, always state both the initial and delivery pressures.

Size, Inches	Style "B" List Each	Style "C" List Each
1/2	Brass \$19.00	Brass \$16.00
3/4	Brass 19.00	Brass 16.00
1	Brass 24.00	Brass 20.00
1 1/4	Brass 30.00	Brass 25.00
1 1/2	Brass 40.00	Brass 32.00
2	Brass 50.00	Iron 40.00
2 1/2	Brass 65.00	
3	Fl. Iron 90.00	
4	Fl. Iron 120.00	

Style B, to 2 1/2 inch . . . . . LIST PLUS 5%  
Style B, 3 and 4 inch. . . . . 15% OFF  
Style C . . . . . LIST PLUS 5%



## DAVIS NO. 2 PRESSURE REGULATORS FOR INITIAL STEAM PRESSURES UP TO 250 POUNDS

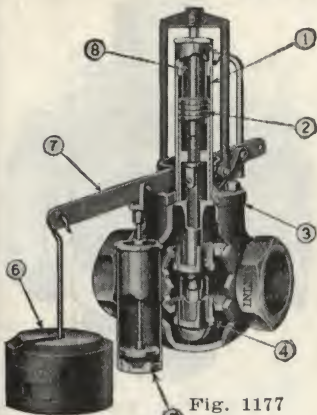


Fig. 1177

### Piston Type

1. Bronze cylinder. No diaphragm to give way and require replacement.
2. Multiple grooved lapped piston. No packing to cause friction.
3. Ground joint between body and cover. No gasket. Perfect alignment.
4. Patented inner valve gives accurate regulation regardless of flow.
5. Oil dash pot insures steady service pressure. No chattering.
6. Counterweights balance pressure. No springs. Gravity is the controlling force. Changing weight regulates reduced pressure.
7. Lever provides means for testing action by hand and makes operation visible.
8. Entire movable assembly is direct connected. No auxiliary valve.

Sizes 1½ inch and smaller are bronze valves. Sizes 2 inches and larger are iron body, bronze trim.

### LIST EACH

Size Inches	Screwed Type	Standard Flanged	Extra Heavy Flanged
1½	\$ 45.00	.....	.....
¾	45.00	.....	.....
1	50.00	.....	.....
1¼	55.00	.....	.....
1½	60.00	.....	.....
2	70.00	\$ 75.00	\$ 80.00
2½	85.00	90.00	95.00
3	100.00	105.00	110.00
3½	120.00	125.00	130.00
4	140.00	145.00	150.00
5	.....	175.00	185.00
6	.....	225.00	235.00
7	.....	300.00	325.00
8	.....	375.00	400.00

DISCOUNT ..... 45% OFF

## KLIPFEL REDUCING VALVES PRESSURE REGULATORS

For automatically maintaining a reduced steam pressure. Has perfectly balanced valve, no springs, no diaphragms, no packing. Made in two patterns.

**No. 1.** With oil dashpot to steady the action of the lever and valve. Should be used wherever the demand for steam varies suddenly, as on reciprocating engines or pumps.

**Marine.** With oil dashpot and sliding ball weight instead of suspended weight which is unsuited for marine service on account of swinging motion. For operating engines, pumps and heating systems on steamships.

Sizes 1½ inches and less have bronze bodies with screwed ends; 2 to 6 inches have iron bodies with either screwed or flanged ends; 7 inches and over have flanged ends only. Unless otherwise ordered, screwed ends will be sent on sizes 6 inches or less.

Made with cylinder and pistons in three sizes to handle different pressures. Therefore, please state both the initial and delivery pressures.

### LIST PRICES EACH

Size, Inches	No. 1 or Marine	
	Screwed List Each	Flanged, List Each
¾	\$ 45.00	.....
1	45.00	.....
1¼	45.00	.....
1½	50.00	.....
1¾	55.00	.....
2	60.00	.....
2½	70.00	\$ 75.00
3	85.00	90.00
3½	100.00	105.00
4	120.00	125.00
5	140.00	145.00
6	170.00	175.00
7	220.00	225.00
8	.....	300.00
10	.....	375.00
12	.....	575.00
14	.....	825.00
16	.....	1025.00

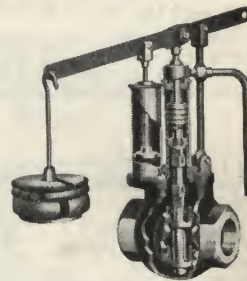


Fig. No. 1179

DISCOUNT ..... 45% OFF

Prices on Reducing Valves controlling fluids other than steam will be quoted on application.

## DAVIS PRESSURE REDUCING VALVE For Steam, Water, Air and Gas

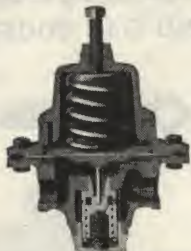


Fig. 4164. Mfrs. 13

Automatic. Closes tight and maintains the reduction regardless of circulation. When closed the flow is entirely stopped, there is no leakage and no hunting. Requires no further care after it is once set. Suitable for initial pressures up to 250 pounds and any reduced pressure between 100 and 1 pound.

**SPECIFY SPRING CAPACITY,** which ranges, for reduced pressures, as follows: No. 1 spring, 1 to 20 pounds; No. 2 spring, 20 to 50 pounds; No. 3 spring, 50 to 100 pounds.

### LIST EACH

Size Inches	Iron Body Bronze Trim	Bronze Body Bronze Trim
¾	\$24.00	\$ 32.00
1	24.00	32.00
1¼	26.00	38.00
1½	32.00	46.00
2	42.00	60.00
2½	52.00	80.00
3	64.00	104.00

DISCOUNT ..... 45% OFF

## DAVIS SOLENOID VALVES

For Working Pressures Up to 250 Pounds  
Specify Whether Current Is A.C. or D.C.

Used to control the flow of water, steam or air by means of a switch or push button any distance away from the valve. The field of application is unlimited.

**SPECIFY WHETHER VALVE IS TO BE "OPENED" OR "CLOSED."** One type opens the valve. One type closes the valve. The construction is the same for both types but the leverage principle is different. The valve is operated with electric current when the solenoid is energized. When the current is shut off the valve automatically returns to the original position. Solenoid valves can also be obtained with a hand reset trip valve instead of an automatic reset when specified.

Two valves may be connected in parallel and operated by one switch which is a desirable hookup for certain conditions. Inquiries should give the full information regarding the desired action wanted.

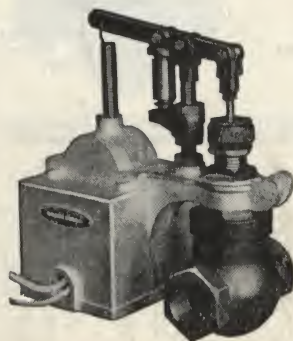


Fig. 4165. Mfrs. 93



Fig. 4166  
Mfrs. 90

Size Inches	Screwed Type	Standard Flanged	Extra Heavy Flanged
<b>Fig. 4165. Mfrs. 93—LIST EACH</b>			
1½	\$120.00	.....	.....
¾	120.00	.....	.....
1	130.00	.....	.....
1¼	140.00	.....	.....
1½	160.00	\$166.00	\$172.00
2	180.00	186.00	192.00
2½	200.00	206.00	212.00
3	250.00	256.00	262.00

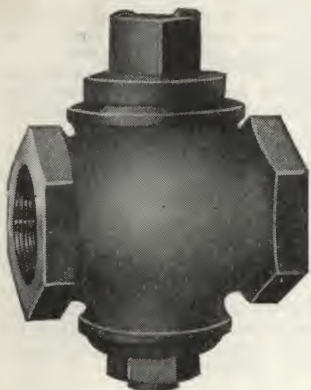
### Fig. 4166. Mfrs. 90—LIST EACH

Size Inches	Screwed Type	Standard Flanged	Extra Heavy Flanged
2	\$250.00	\$256.00	\$262.00
2½	270.00	276.00	282.00
3	340.00	346.00	352.00
3½	390.00	396.00	402.00
4	450.00	456.00	462.00
5	.....	540.00	550.00
6	.....	600.00	610.00
8	.....	760.00	780.00

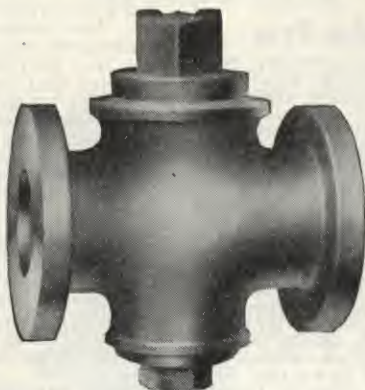
**Fig. 4166 . . . . PRICES ON REQUEST**  
**Fig. 4165, For Water or Oil, 50% OFF**  
**Fig. 4165, For Steam . . . . 40% OFF**



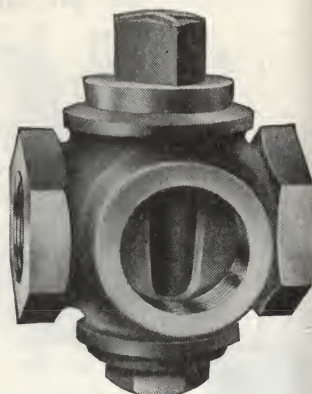
## STANDARD PATTERN IRON COCKS



Screwed  
Fig. No. 2520



Flanged  
Fig. No. 2522



Three Way, Screwed  
Fig. No. 2521S

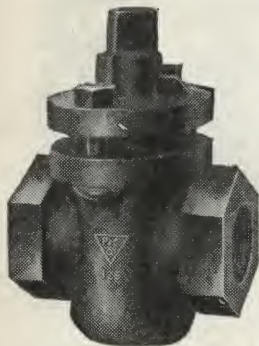
The all iron cocks should not be used for steam or water, as the plug will stick in the barrel and it is almost impossible to turn it. We recommend cocks with brass plug for steam or water. Unless otherwise ordered, cocks up to 2 inches will be furnished with flat head; 2½ inches and larger with square head. Furnished with check at an additional charge. Prices on application.

## LIST PRICES EACH

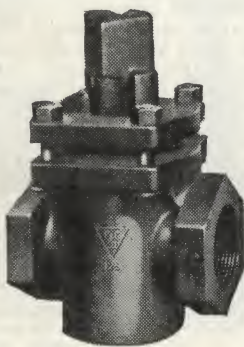
Size, Inches	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
<b>Screwed Fig. 2520</b>										
All Iron	\$0.90	\$1.05	\$1.30	\$1.60	\$1.95	\$2.70	\$4.40	\$6.75	\$15.50	\$45.00
All Iron, Galvanized	\$1.35	\$1.60	\$1.95	\$2.40	\$2.95	\$4.05	\$6.60	\$10.15	\$23.25	\$67.50
Iron, with Brass Washer	\$1.00	\$1.20	\$1.55	\$1.95	\$2.35	\$3.20	\$5.15	\$7.75	\$19.00	.....
With Brass Plug and Washer	\$1.40	\$1.75	\$2.15	\$3.00	\$4.15	\$5.75	\$9.50	\$14.00	\$40.00	.....
<b>Flanged Fig. 2522</b>										
All Iron	.....	.....	.....	.....	.....	\$4.25	\$6.25	\$9.50	\$19.00	\$50.00
With Brass Plug and Washer	.....	.....	.....	.....	.....	\$7.50	\$11.25	\$16.75	\$43.50	\$108.00
<b>Three Way, Screwed Fig. 2521S</b>										
All Iron	.....	\$1.65	\$1.80	\$2.05	\$2.65	\$3.65	\$5.35	\$7.50	\$19.00	.....
All Iron, Galvanized	.....	\$2.50	\$2.70	\$3.10	\$4.00	\$5.50	\$8.00	\$11.25	\$28.50	.....
With Brass } Iron, Black	.....	\$2.35	\$2.65	\$3.45	\$4.90	\$6.75	\$10.50	\$14.75	\$43.50	.....
Plug and Washer } Iron, Galv.	.....	\$3.00	\$3.35	\$4.25	\$5.95	\$8.20	\$12.45	\$17.40	\$50.00	.....
<b>Three Way, Flanged Fig. 2521F</b>										
All Iron	.....	.....	.....	.....	.....	\$7.00	\$9.00	\$12.75	\$26.00	\$60.00
With Brass Plug and Washer	.....	.....	.....	.....	.....	\$10.00	\$14.00	\$20.00	\$50.50	\$116.00
Diameter of Flanges	.....	.....	.....	.....	.....	6	7	7-1/2	9	11

DISCOUNT ..... 10% OFF

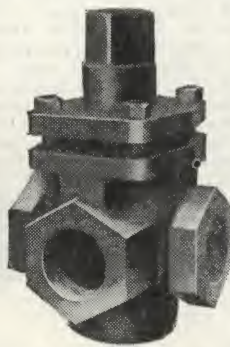
## VULCANIZED ASBESTOS, GROOVE-PACKED, IRON COCKS



Screwed  
½ in. to 2 in. sizes  
Fig. No. 1205



Screwed  
2½ in. to 4 in. sizes  
Fig. No. 1205A



Three Way, Screwed  
½ in. to 3 in. sizes  
Fig. No. 1207

Packed with asbestos around the plug. These iron cocks are extensively used for boiler service where other cocks fail. Also desirable for ammonia, gas, oil and air.

**Screwed**  
LIST PRICES EACH

Size, In.	List Each	Size, In.	List Each	Size, In.	List Each
½	\$2.25	1¼	\$4.00	2½	\$13.20
¾	2.95	1½	5.45	3	19.80
1	3.50	2	8.00	4	33.00

**Three Way**  
LIST PRICES EACH

Size, In.	List Each	Size, In.	List Each
½	\$4.25	1½	\$13.00
¾	4.75	2	22.50
1	6.60	2½	33.75
1¼	9.00	3	50.00

DISCOUNT ..... LIST PLUS 30%

## WRENCHES FOR STEAM AND GAS COCKS



Square Head  
Fig. No. 2523



Flat Head  
Fig. No. 2524

## LIST PRICES EACH

Size of Cock, Inches	SQUARE Head For IRON COCKS	SQUARE Head For BRASS COCKS	FLAT Head For IRON COCKS	FLAT Head For BRASS COCKS
1/4	.....	\$0.05	.....	\$0.05
3/8	.....	\$0.06	.....	\$0.06
1/2	\$0.07	\$0.07	\$0.07	\$0.07
3/4	\$0.11	\$0.11	\$0.11	\$0.11
1	\$0.15	\$0.15	\$0.15	\$0.15
1-1/4	\$0.20	\$0.20	\$0.20	\$0.20
1-1/2	\$0.29	\$0.29	\$0.29	\$0.29
2	\$0.48	\$0.48	\$0.48	\$0.48
2-1/2	\$0.82	\$0.82	\$0.82	\$0.82
3	\$1.20	\$1.20	\$1.20	\$1.20
4	\$4.50	.....	\$4.50	.....
6	\$5.50	.....	.....	.....

DISCOUNT ..... 40% OFF



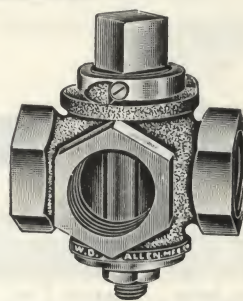
STANDARD PATTERN STEAM COCKS—Steam Metal



Square Head  
Fig. No. 331



Flat Head  
Fig. No. 332



Three Way, with Check  
Fig. No. 1200

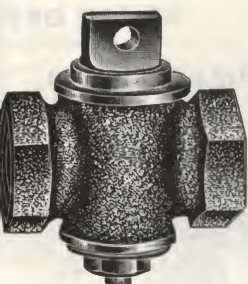
LIST PRICES EACH

Size, Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Square Head	\$0.85	\$1.00	\$1.25	\$1.70	\$2.35	\$3.70	\$4.85	\$ 7.30	\$14.50	\$22.50
Flat Head	.85	1.00	1.25	1.70	2.35	3.70	4.85	7.30	14.50	22.50
Three Way	1.80	2.10	2.50	3.00	3.75	5.75	7.15	11.00		

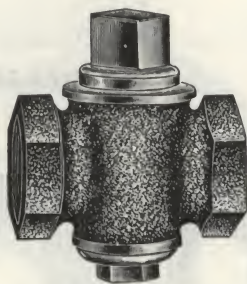
DISCOUNT ..... 40% OFF

STANDARD PATTERN GAS SERVICE COCKS

Brass



Flat Head  
Fig. No. 333



Square Head  
Fig. No. 334



Tee Handle  
Fig. No. 1201

Unless otherwise ordered, flat head cocks will always be furnished.

LIST PRICES EACH

Size, Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Flat Head	\$0.90	\$1.00	\$1.10	\$1.30	\$2.10	\$3.25	\$4.60	\$8.00
Square Head	.90	1.00	1.10	1.30	2.10	3.25	4.60	8.00
Tee Handle	.90	1.00	1.10	1.30	...	...	...	...

DISCOUNT ..... 40% OFF

GAS STOVE COCKS

Brass

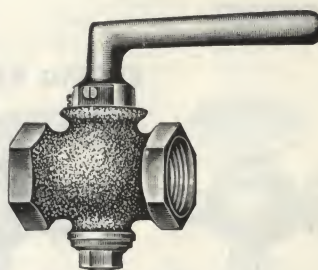


Fig. No. 1204

Lever Handle, with Check

★ NET PRICES EACH

Size, Inches	★ NET EACH
1/4	\$0.58
3/8	\$0.64
1/2	\$0.72
3/4	\$0.86
1	\$1.06

STANDARD PATTERN LOCK GAS SERVICE COCKS

Brass



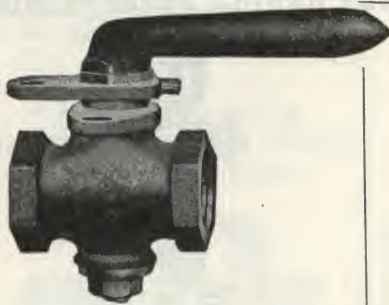
Flat Head, Tee Hdl.

Fig. No. 1203

LIST PRICES EACH

Size, Inches	List Each
1/4	\$1.40
3/8	1.60
1/2	2.50
3/4	3.85
1	5.35
1 1/4	9.00

DISCOUNT ..... 40% OFF



Socket Head, Lever Hdl.

Fig. No. 2779

LIST PRICES EACH

Size, Inches	List Each
3/8	\$1.60
1/2	1.70
3/4	1.90
1	2.85
1 1/4	4.60
1 1/2	6.35
2	10.70

DISCOUNT ..... 40% OFF

LEVER HANDLE GAS COCK FOR HOSE

Brass

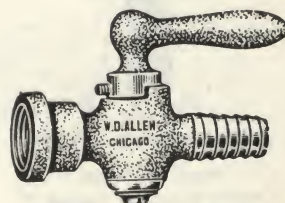


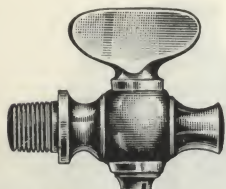
Fig. No. 2822

★ NET PRICES PER DOZ.

Size, Inches	★ NET DOZEN
1/4	\$5.50
3/8	\$6.00
1/2	6.72
3/4	7.80



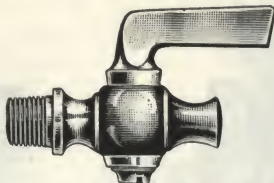
BRASS AIR COCKS—Tee and Lever Handles



Tee Handle, Drip End  
Fig. No. 325

LIST PRICES EACH

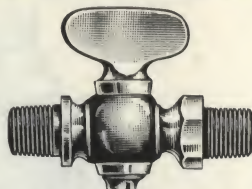
No.	Size, Inches	List Each
6	1/8	\$0.40
7	1/4	.45
8	3/8	.50
9	1/2	.60



Lever Handle, Drip End  
Fig. No. 326

LIST PRICES EACH

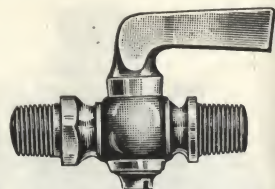
No.	Size, Inches	List Each
12	1/8	\$0.55
13	1/4	.60
14	3/8	.65
15	1/2	.75



Tee Handle, Double Male  
Fig. No. 327

LIST PRICES EACH

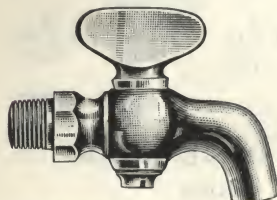
No.	Size, Inches	List Each
18	1/8	\$0.55
19	1/4	.65
20	3/8	.75
21	1/2	.90



Lever Handle, Double Male  
Fig. No. 328

LIST PRICES EACH

No.	Size, Inches	List Each
22	1/8	\$0.70
23	1/4	.80
24	3/8	.90
25	1/2	1.05



Tee Handle Bibb  
Fig. No. 329

LIST PRICES EACH

No.	Size, Inches	List Each
26	1/8	\$0.70
27	1/4	.80
28	3/8	.90
33	1/2	1.00

Lever Handle Bibb  
Fig. No. 330

LIST PRICES EACH

No.	Size, Inches	List Each
29	1/8	\$0.85
30	1/4	.95
31	3/8	1.05
32	1/2	1.15

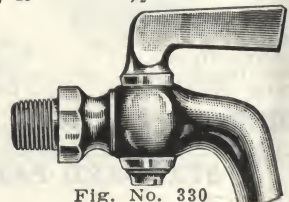
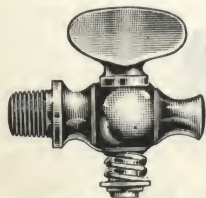


Fig. No. 330

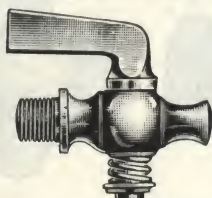
DISCOUNT

50-10% OFF

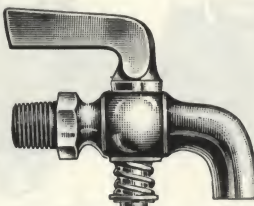
SPRING KEY COCKS



Tee Hdl., Drip End  
Fig. No. 325A



Lever Hdl., Drip End  
Fig. No. 326A



Lever Hdl. Bibb  
Fig. No. 330A

LIST PRICES EACH

Size of Thread	Fig. No. 325A List Each	Fig. No. 326A List Each	Fig. No. 330A List Each
1/8 inch.....	\$0.50	\$0.65	\$0.95
1/4 inch.....	.55	.70	1.05
3/8 inch.....	.60	.75	1.15
1/2 inch.....	.70	.85	1.25

DISCOUNT

50-10% OFF

BRASS DRAIN COCKS

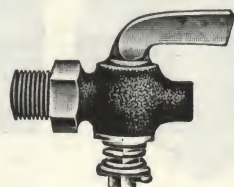


Fig. No. 2228

With spring and lock washer.  
For gasoline, oil or water.

No. 16.	1/8 inch I. P. T.	★ NET EACH, \$0.12
No. 17.	1/4 inch I. P. T.	★ NET EACH, \$0.17
No. 18.	3/8 inch I. P. T.	★ NET EACH, \$0.20
No. 19.	1/2 inch I. P. T.	★ NET EACH, \$0.36

LEVER HANDLE BRASS PRIMING CUPS

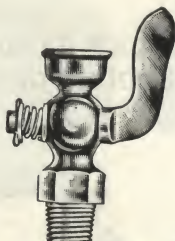


Fig. No. 339

LIST PRICES EACH

Fig. No. 339

With Regular Shank

No.	Outside Diam. of Bowl, In.	Shank, I. P. T., In.	List Each
7	1/2	1/8	\$0.75
8	3/8	1/8	.80
9	1/2	1/8	.90
10	1 1/4	3/8	1.20

DISCOUNT 70% OFF

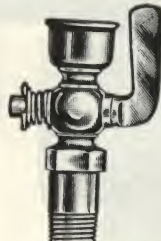


Fig. No. 339A

LIST PRICES EACH

Fig. No. 339A

With Extension Shank

No.	Outside Diam. of Bowl, In.	Shank, I. P. T., In.	List Each
13	3/8	1/8	\$ .85
14	1/2	1/8	.95
15	1 1/4	3/8	1.25

DISCOUNT 70% OFF

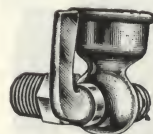


Fig. No. 340

LIST PRICES EACH

Fig. No. 340

With Elbow Shank

No.	Outside Diam. of Bowl, In.	Shank, I. P. T., In.	List Each
1	3/8	1/8	\$1.00
2	1/2	1/4	1.10

DISCOUNT 70% OFF

Tee Handle Priming Cups can also be furnished. Prices on application.



## STEAM GAUGE COCKS

Finished Brass

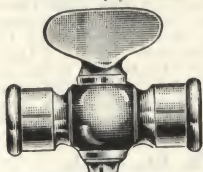


Fig. 1250—Double Female

Fig. No. 1250, dbl. female, 1/8 in. \$0.75  
Fig. No. 1250, dbl. female, 1/4 in. .80

DISCOUNT .....60% OFF

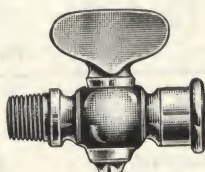


Fig. 1251—Male and Female

Size Inches List Each

1/8 .....\$0.85  
1/4 ..... .90  
3/8 ..... .90

DISCOUNT .....60% OFF

## COMPRESSION GAUGE COCKS

Without Stuffing Box

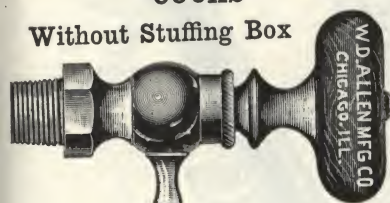


Fig. No. 1245

3/8 Inch....★ NET EACH, \$0.51  
1/2 Inch....★ NET EACH, \$0.53  
3/4 Inch....★ NET EACH, \$0.84

With Stuffing Box

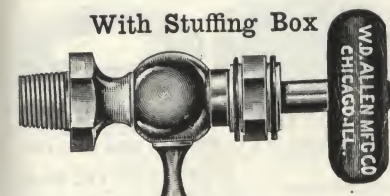


Fig. 1246

3/8 Inch....★ NET EACH, \$0.80  
1/2 Inch....★ NET EACH, \$0.86  
3/4 Inch....★ NET EACH, \$0.97

## REGRINDING GAUGE COCK



Fig. No. 1247

For pressures up to 200 lbs. only.

Size, In. ★ NET EACH  
1/4 .....\$1.16  
3/8 .....\$1.36  
1/2 .....\$1.45  
3/4 .....\$2.00

## LOW WATER ALARM

"It Whistles"



Fig. 2909

Specify Pressure and size of the Connection

An auxiliary safety device for application to horizontal or vertical tubular boilers. Not to be considered a substitute for the tin-filled boiler plug required by the various boiler codes. Combines a fusible plug melting by steam pressure and a whistle alarm sounded when low water line is reached. Positive in action, simple and sturdy in design. All parts standard and replaceable. Acceptable to A. S. M. E. State Inspection Bureaus and Insurance Cos.

★ NET EACH, \$7.25

## RENEWABLE HIGH PRESSURE GAUGE COCK



Fig. No. 2911

Quick Acting  
Non-Leaking

Renewable working parts, may be replaced at a fraction of the cost of an entirely new cock.

Quick acting, non-leaking and heavily constructed for severe service. Simple in design, with free openings for the passage of steam, insuring long life.

Seats and stems are cast from a special steam metal, and made oversized to allow for regrinding. All parts standard and renewable. Duplicate parts always in stock.

Made with either 1/2-inch or 3/4-inch shank. Specify size.

★ NET EACH, \$3.50

## BRASS TRACTION ENGINE CYLINDER COCKS

Short or Long Shank

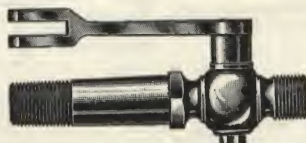


Fig. No. 1262

### MALE END

### LIST PRICES EACH

No.	Shank Pipe Thread, In.	Blank Shank Diam., In.	Short Shank, List Each	Long Shank, List Each
105L	1/4	1/2	\$1.30	\$1.55
106L	3/8	3/4	1.40	1.70
108L	1/2	3/4	2.50	3.00

DISCOUNT .....35% OFF

## OIL GAUGES

For Self-Oiling Bearings

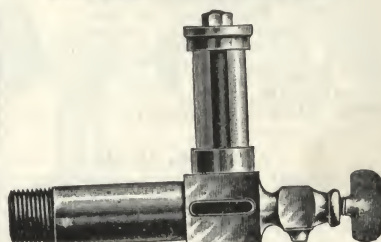


Fig. 200E

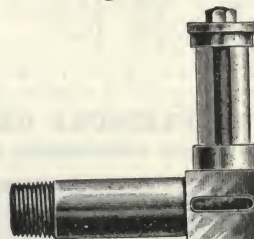


Fig. 202E

Num-ber	Size Shank Pipe Inch	Shank Center To Top of Glass	Length Shank From Square Center	Brass List Each
0	1/8	2 1/4	1 5/8	\$0.80
1	1/4	3 1/4	1 3/4	.90
2	3/8	3 3/4	2 1/2	1.05
3	1/2	4 3/4	4	1.40

### DISCOUNTS

Fig. 200E.....10-5% OFF  
Fig. 202E.....15-5% OFF

## CROSS OIL FILTERS

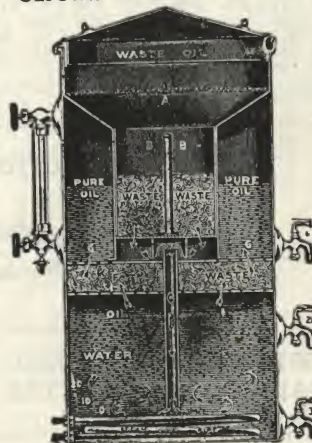


Fig. No. 1334

Guaranteed to separate water automatically from waste engine and machine oil and at the same time clean the oil so that it may be used again. This reclaimed lubricant will be suitable for pumps and machinery but can scarcely be recommended for re-use in engine cylinders.

### LIST PRICES EACH

No.	Filtering Cap., Gals. per 24 hrs.	List Each	Holding Gals.	Diam. In.	Ht. In.
1	20-30	\$37.00	7	18	30
2	5-10	25.00	3	12	26
3	40-50	75.00	17	24	36
4	60-70	90.00	26	30	54
5	70-90	110.00	32	33	56
6	100-120	130.00	45	35	60
7	120-150	160.00	52	35	74
8	150-200	190.00	57	40	76

PRICE .....LIST NET



## GENUINE MONCRIEFF SCOTCH GAUGE GLASS TUBES FOR STEAM PRESSURES UP TO 200 POUNDS

The GENUINE Moncrieff Gauge Glass imported from Scotland. Has been on the market about seventy years. Tough and clear. The fine Scotch sand and the exclusive Moncrieff formula of manufacture give these gauge glasses superiority.



Fig. 1230

Endures the strain of sudden changes in temperature of water. Withstands the pressures common to modern boilers. Resists the impact of drafts of cold on heated glass. Carefully packed, 12 dozen tubes to a package.

### LIST PRICES PER DOZEN

$\frac{1}{2}$ In., O. D.				$\frac{3}{4}$ In., O. D.			
Length, In.	List, Doz.	Length, In.	List, Doz.	Length, In.	List, Doz.	Length, In.	List, Doz.
10	\$2.28	17	\$3.96	10	\$3.00	17	\$5.04
11	2.64	18	4.20	11	3.24	18	5.40
12	2.76	19	4.44	12	3.60	19	5.64
13	3.00	20	4.68	13	3.84	20	6.00
14	3.24	22	5.04	14	4.20	22	6.60
15	3.48	24	5.52	15	4.44	24	7.20
16	3.72	..	....	16	4.80	..	....

DISCOUNT ..... 60% OFF

### HIGH PRESSURE GAUGE GLASSES FOR STEAM PRESSURES UP TO 500 POUNDS



Fig. No. 2858

Made with painstaking care. These glasses remain clear and unclouded in service, and are unaffected by sudden and radical changes in temperature. Absolutely uniform in size and quality. Made with fused ends.  $\frac{1}{2}$  dozen in package, carefully packed.

### LIST PRICES PER DOZEN

$\frac{1}{2}$ In., O. D.				$\frac{5}{8}$ In., O. D.				$\frac{3}{4}$ In., O. D.			
In.	List, Doz.	In.	List, Doz.	In.	List, Doz.	In.	List, Doz.	In.	List, Doz.	In.	List, Doz.
10	\$3.12	17	\$5.28	10	\$4.08	17	\$6.96	10	\$5.76	17	\$9.48
11	3.36	18	5.52	11	4.56	18	7.32	11	6.24	18	10.08
12	3.72	19	5.88	12	4.92	19	7.80	12	6.72	19	10.56
13	3.96	20	6.12	13	5.28	20	8.16	13	7.20	20	11.16
14	4.32	22	6.72	14	5.76	22	9.00	14	7.80	22	12.36
15	4.68	24	7.44	15	6.12	24	9.84	15	8.40	24	13.44
16	4.92	..	....	16	6.48	..	....	16	9.00	..	....

DISCOUNT ..... 55% OFF

### LIBBY RED LINE HIGH PRESSURE GAUGE GLASSES

FOR PRESSURES TO 400 POUNDS

A bright, highly magnified red line against a white background makes the water line always visible under trying conditions. Immune to sudden and severe temperature changes. Unaffected by cold drafts or splashes of water at freezing temperature. Clear and transparent under all conditions. Absolutely uniform in size. Fused ends.

### LIST PER DOZEN

Length Inches	O.D. Inches	List, per Dozen
10	$\frac{3}{4}$	\$7.00
11	$\frac{3}{4}$	7.40
12	$\frac{3}{4}$	8.40
13	$\frac{3}{4}$	9.00
14	$\frac{3}{4}$	9.60
15	$\frac{3}{4}$	10.00
16	$\frac{3}{4}$	11.40
17	$\frac{3}{4}$	11.80
18	$\frac{3}{4}$	12.20
19	$\frac{3}{4}$	13.00
20	$\frac{3}{4}$	14.00
22	$\frac{3}{4}$	14.80
24	$\frac{3}{4}$	16.80

DISCOUNT 30% OFF



Fig. No. 3304

### "LITTLE PERFECTION" GLASS TUBE CUTTER



For Cutting  $\frac{1}{2}$  Inch O. D. Glass Tubes Only

Fig. No. 1234

★ NET EACH, \$0.40

### WILKIN'S IMPROVED GAUGE GLASS CUTTER

For Cutting  $\frac{5}{8}$  Inch O. D. and  $\frac{3}{4}$  Inch O. D. Glass Tubes Only



Fig. No. 1237

Cuts easily and quickly any length from  $\frac{1}{2}$  in. to 8 in. The beam is accurately graduated in eighths of an inch up to 8 in. Cutter wheels are the best that can be made, every one ground sharp and tested. The tool is nickel plated. Packed one in a box with one extra cutter wheel.

★ NET EACH, \$1.50

### CHESTERTON'S GLASS TUBE CUTTER

For Cutting  $\frac{5}{8}$  Inch O. D. and  $\frac{3}{4}$  Inch O. D. Glass Tubes Only



Fig. No. 1233

One arm has a scale in inches and fractions of an inch, a slide stop with set screw, and a rotary cutter at the end. This arm is inserted in the end of the glass tube, the outside of the glass tube resting in the circled end of the other arm. With a slight pressure of thumb and finger on the lever, and a rotation of the glass with the other hand, the rotary cutter makes an even cut around the inside of the tube and slight pressure breaks it off.

★ NET PRICES EACH

Tube cutter complete. Net Each, \$1.65  
Extra cutter wheels. Net Each, .25

### GAUGE GLASS WASHERS



Fig. No. 1231 Square Edge  
Fig. No. 1231-A Round Edge  
 $\frac{1}{2}$ ,  $\frac{3}{4}$ , or  $\frac{1}{2}$  in. Specify size wanted. Square edge, black rubber.

★ NET POUND, \$0.80  
★ NET POUND, 1.50

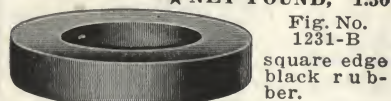


Fig. No. 1231-B square edge black rubber.  
Size, In. O. D. Thickness, Net, Lb.  
 $\frac{1}{2}$  in.  $\frac{1}{16}$  in.  $\frac{3}{16}$  in. \$1.00  
 $\frac{3}{4}$  in.  $\frac{1}{16}$  in.  $\frac{3}{16}$  in. 1.00  
 $\frac{1}{2}$  in.  $\frac{1}{16}$  in.  $\frac{3}{16}$  in. 1.00

### MORSE SELF-PACKING GAUGE GLASS PRESERVER

Fig. No. 1232

Prevents breaking of glasses by expansion. Made in three sizes for  $\frac{1}{2}$  in.,  $\frac{3}{4}$  in. and  $\frac{1}{2}$  in. gauge glasses. When ordering, specify size wanted. Packed 1 dozen in box.

★ NET BOX, \$0.50





WATER GAUGES—Iron and Wood Handles



Fig. No. 1217, Expansion Tank

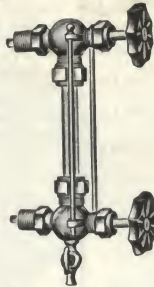


Fig. Nos. 1218, 1219, 1220

★ NET PRICES EACH

Fig. No.	Boiler Conn., Inches	Glass, Inches	Description	Style Body	No. of Guards	Handle	★ NET EACH
1217	1/2	5/8x12	Exp. Tank	Round, Rough	2	....	\$1.15
1218	3/4	5/8x10	Regular	Round, Rough	2	Iron	\$1.55
1219	1/2	5/8x12	Regular	Round, Rough	2	Iron	\$1.60
1220	3/4	3/4x16	Regular	Round, Rough	2	Iron	\$2.85

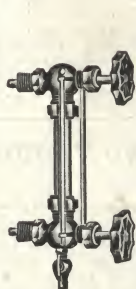


Fig. No. 1221  
Fig. No. 1222

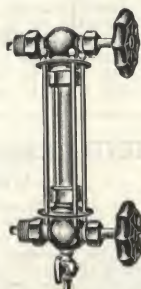


Fig. Nos. 1223 to 1226

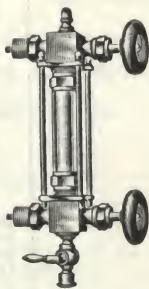


Fig. No. 1227  
Fig. No. 1228

LIST PRICES EACH

Fig. No.	Boiler Conn., Inches	Glass, Inches	Style Body	No. of Guards	Hand'e	List Each
1221	1/2	5/8x12	Round, Polished	2	Iron	\$3.75
1222	1/2	5/8x12	Round, Polished	2	Wood	4.25
1223	3/4	5/8x12	Round, Polished	4	Iron	4.50
1224	3/4	5/8x12	Round, Polished	4	Wood	5.00
1225	3/4	5/8x16	Round, Polished	4	Iron	5.50
1226	3/4	5/8x16	Round, Polished	4	Wood	6.25
1227	3/4	5/8x12	Square, Polished	4	Iron	6.00
1228	3/4	5/8x16	Square, Polished	4	Iron	8.00

DISCOUNT, Figs. 1221-1228 only..... 30% OFF

RELIANCE SAFETY WATER COLUMN  
WITH HIGH AND LOW WHISTLE ALARM.  
FOR PRESSURES TO 250 POUNDS

It sounds an alarm whistle when the water reaches either a high or low level in the boiler. Screwed steam and water connections. Water gauge or gauge cocks are extra, see below.

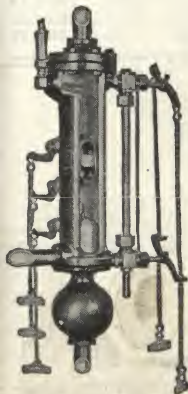


Fig. 5330

COLUMN NO.	1	5	7
Boiler, Size or Kind	36 to 54 Inch	54 to 72 Inch	Water Tube
Variation Between Alarms, 1 In.	6 In.	8 In.	12 In.
Steam or Water Connection	1 In.	1-1/4 In.	1-1/2 In.
Water Gauge Centers	13-1/2 In.	18 In.	21 In.
Size Water Gauge Tapping	1/2 In.	3/4 In.	3/4 In.
Blow-off Size,	3/4 In.	3/4 In.	3/4 In.
Gauge Cock Connection, C. to C.	3 In.	4 In.	6 In.
Gauge Cock Tapping	1/2 In.	3/4 In.	3/4 In.
Center Water Conn. to Top Col.	16-1/4	21	25-3/4
Length Overall, Inch	23-1/4	29-3/4	36
Approximate Shipping Wt. Lbs.	45	70	120

★ NET COLUMN ONLY \$33.90 \$36.90 \$42.35

FITTINGS—★ NET EACH

Quick Closing Water Gauge			
Vertical, Plain Glass	\$18.15	\$18.15	\$18.15
Vertical, Prismatic Glass	.....	\$41.15	\$48.40
Tilt View, Plain Glass	.....	\$48.40	\$48.40
Tilt View, Prismatic Glass	.....	\$78.65	\$78.65
Quick Closing Gauge Cocks			
Weighted, Set of 3	\$9.10	\$9.10	\$9.10
Spring Type, Set of 3	\$18.15	\$18.15	\$18.15
Chain 5c Foot Extra.			

SAFEGUARD AUTOMATIC  
WATER GAUGE

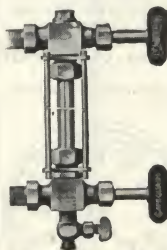


Fig. No. 2560

If glass is broken, there is no danger of escaping steam and scalding water. This gauge will work automatically, as the ball valves close only when the glass is broken, and positively drop away from their seats as soon as the new glass is inserted. This feature makes the gauge operate at all times, and prevents the showing of a false water level and the danger which might result.  
Glass 14 in. long or longer can also be used with 1/2 in. gauges.

★ NET PRICES EACH

Boiler Conn., Inches	Size Glass, Inches	★ NET EACH
1/2	5/8x12	\$ 7.50
3/4	3/4x16	\$10.13

CHAIN LEVER  
WATER GAUGES

Steam can be shut off immediately, in case glass breaks. Polished body, with 4 guards. Boiler connection 3/4 in., glass 3/4x16 in. Horizontal position of levers indicates gauge is open to boiler. Drawing right hand levers down 45° shuts off gauge.

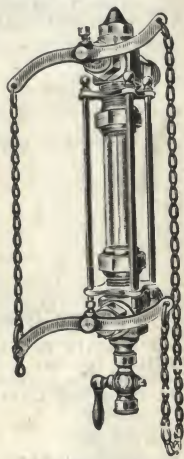


Fig. No. 1230A

LIST PRICES EACH

Fig. No. 1230A,  
Square Body.  
List Each, \$15.00

DISCOUNT ..... 25% OFF

RELIANCE HIGH OR LOW  
WHISTLE ALARM



Fig. 5331

Used on small boilers, feed water heaters, pneumatic storage tanks, etc. For pressures up to 200 pounds. It blows a whistle at the high or low level as selected, SPECIFY HIGH OR LOW LEVEL. 1 inch steam and water connection. Height overall 10-3/8 inches.

★ NET COMPLETE, \$18.15



## SINGLE SPRING STEAM OR PRESSURE GAUGES AND VACUUM GAUGES

Suitable for steam, gas, air, water, or any pressure medium that will not injure bronze.

Skillfully hand constructed and warranted to be of faultless design and perfect workmanship.

Range of graduations of pressure gauges is 0 to 600 pounds.

Gauges must be siphoned when used to register steam pressure.



Fig. No. 1238

### Small Sizes.

Regularly furnished with 1/4-inch male bottom connections.

#### ★ NET PRICES EACH

Dial, In.	★ NET EACH
2 1/2, without cock, steel case.....	\$1.20
3, with cock, steel case.....	\$1.65
3 1/2, with T handle cock, steel case.....	\$1.75
4 1/2, with T handle cock, steel case.....	\$2.10
5, with T handle cock, iron case.....	\$5.15
5, with T handle cock, steel case.....	\$3.30



Fig. No. 3270

### Large Sizes. Iron Case, Brass Ring

Regularly furnished with 1/4 inch male bottom connection for the 6 inch size and 1/4 inch female connection for the larger sizes. Single Spring Gauges graduated to 600 Pounds or Less.

Dial, In.	★ NET EACH
6, with T handle cock.....	\$8.55
8 1/2, with lever handle union cock.....	\$14.46
10, with lever handle union cock.....	\$21.05
12, with lever handle union cock.....	\$32.87

Single Spring Gauges, graduated above 600 lbs., but not over 1000 lbs.

#### PRICES ON REQUEST

## TRACTION OR FARM ENGINE GAUGES

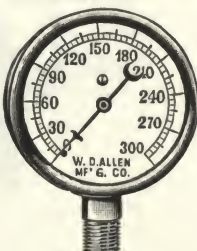


Fig. No. 1241

Strongly built, iron case with close nickel ring and without back flange. Regularly made with 3/8 in. male bottom connections. No cock furnished with these gauges. Auxiliary spring.

4 1/2 Inch Dial.....★ NET EACH, \$5.25

## DOUBLE SPRING STEAM GAUGES

All made for exacting service. Of the most rugged construction throughout and should be employed where severe service conditions exist.

Range of graduation: 100 to 600 pounds. Extra charge when graduated over 600 to 1000 pounds.

Regularly furnished with 1/4-inch male bottom connections on sizes 3 1/2 to 6 inch. 1/4 inch female connection on sizes 6 3/4 to 12 inch.

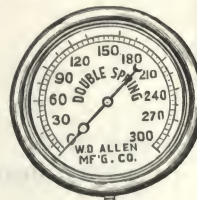


Fig. No. 1239

### Steel and Iron Case, Brass Ring

Dial, In.	★ NET EACH
3 1/2, with T handle cock, steel case.....	\$7.41
4 1/2, with T handle cock, steel case.....	\$7.70
5, with T handle cock, iron case.....	\$8.49
6, with T handle cock, iron case.....	\$10.89
8 1/2, with lever handle union cock, iron case.....	\$19.30
10, with lever handle union cock, iron case.....	\$28.57
12, with lever handle union cock, iron case.....	\$42.43

## COMPOUND PRESSURE AND VACUUM GAUGE

Graduated to any standard pressure from 15 to 300 pounds and to 30 inches vacuum. For any pressure medium which will not deteriorate brass and for the indication of both pressure and vacuum. 1/4 inch male bottom connections on sizes 3 1/2 to 6 inch. 1/4 inch female bottom connection on sizes 6 3/4 to 12 inch. Gauges must be siphoned when used to register steam pressure.

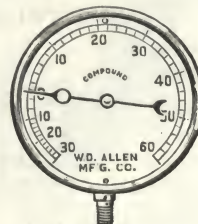


Fig. No. 2543

### Steel and Iron Case, Brass Ring

#### ★ NET PRICES EACH

Dial, In.	★ NET EACH
2 1/2, without cock, steel case.....	\$1.65
3, without cock, steel case.....	\$1.90
3 1/2, with cock, steel case.....	\$2.00
4 1/2, with cock, steel case.....	\$2.40
5, with cock, steel case.....	\$3.70
6, with cock, iron case.....	\$10.53
8 1/2, with cock, iron case.....	\$19.73
10, with cock, iron case.....	\$26.31
12, with cock, iron case.....	\$39.47

## AIR GAUGE

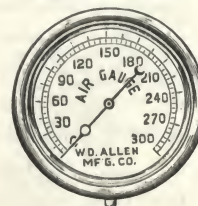


Fig. No. 2545

### Beaded Steel Case, Brass Beaded Rim

3 1/2 in. dial, specially adapted for air pressure, graduated up to 300 lbs. Regularly furnished with 1/4 in. male bottom connection with cock.

★ NET EACH, \$1.70



**LOW PRESSURE HOUSE HEATING STEAM GAUGE**

Fig. 1242

Steel case, with brass ring, similar in construction to the regular single spring gauge. Constructed to prevent corrosion of the moving parts. Can be graduated to higher or lower pressures than 30 pounds when desired. Proper siphon must be used.

Dial, Inches **★ NET EACH**  
 4-1/2, with cock .....\$2.05  
 3-1/2, with cock .....\$1.60

**RETARD VAPOR GAUGES**

Fig. No. 2541

Especially suited for general heating and vapor heating service, also where accurate reading within one ounce is required over the first few pounds and yet a 30-pound gauge must be employed to comply with the various state laws. Furnished without cocks. Regularly made with 1/4-inch male bottom connections.

**Steel Case, Brass Ring**

Dial, Inches **★ NET EACH**  
 3-1/2 .....\$2.05  
 4-1/2 .....\$2.40

**ALTITUDE GAUGES**

Fig. No. 1243

Steel case, brass ring. Designed to indicate the height of water in a tank, reservoir, etc. It is fitted with a red adjustable hand which can be set at any desired pressure. The operating hand indicates the exact height of water in the tank. Standard stock gauges are graduated to a maximum of 70 feet. List price includes cock on 4 1/2 and 3 1/2 in. sizes only.

Dial, Inches **★ NET EACH**  
 3-1/2 .....\$1.80  
 4-1/2 .....\$2.20

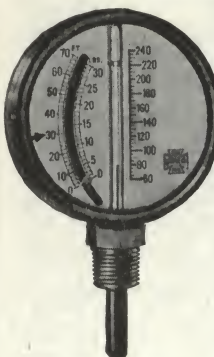
**COMBINATION ALTITUDE GAUGE AND GLASS TUBE THERMOMETER**

Fig. 4767

Dial, Inches  
 3-1/2  
 4-1/2

For use or all hot water heating boilers combining, a high grade altitude gauge for registering height of water in the system and a high grade glass tube thermometer for indicating the temperature of the water, into one instrument, both readings on the same dial. Steel hard rubber finish case. 1/2 inch I. P. T. connection.

**★ NET EACH**  
 \$2.75  
 \$3.10

**PIGTAIL SIPHON**

Fig. 1257-1 Straight

Iron pipe. Straight style furnished unless otherwise specified.  
 No. 1 Straight...**★ NET EACH, \$0.25**



Fig. 1257-3 Angle

No. 3 Angle .....**★ NET EACH, \$0.25**

**THERMOMETERS**

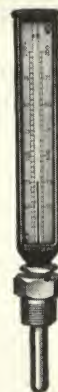
Fig. 966 Straight



Fig. 967 Angle

For hot water or steam. Made of cast iron, hard white enamel finish, with the graduations marked directly on the casting. The glass tube is mounted in a slot and the construction is such as to afford the clearest reading and prevent breakage of the tubes. Standard graduation is 60° to 260° Fahrenheit. Both straight and angle types have 1/2-inch male Iron Pipe connections.

Fig. No. Stem **★ NET EACH**  
 966 Straight .....\$0.70  
 967 Angle .....\$0.80

**AMERICAN SUBMARINE THERMOMETER**Fig. 4771S  
StraightFig. 4771A  
Angle

Each thermometer is individually graduated assuring absolute accuracy. Extra strong, yet durable, light, and attractive Phenol Condensate case. Will withstand severe shock and vibration conditions. Red reflecting mercury-filled tubes, properly annealed and seasoned. The scale is silver finished with easy reading numerals. Scale opening is 5-1/2 inches. Interchangeable socket, 3-1/4 inches overall with 3/4 I. P. T. connection. For stems up to 15 inches, prices on request.

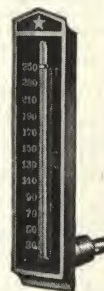
**SPECIFY TEMPERATURE RANGE FAHRENHEIT:**

Range	General Application
- 20 to +120	Brine
+ 30 to +160	Hot Water
+ 30 to +240	Hot Water
+ 170 to +270	Hot Oils or Steam
+ 50 to +400	Hot Oils

**LIST PRICES EACH**

Type	Monel Socket	Brass Without Socket
Straight	\$8.75	\$7.25
Angle	\$11.00	\$9.50

**DISCOUNT .....25% OFF**

**AMERICAN FLAT CASE 'V' SCALE THERMOMETER**Fig. 4772S  
StraightFig. 4772A  
Angle

Accuracy is assured as each thermometer is individually graduated. For use in lines where pressure does not exceed 40 pounds to the square inch. For general industrial use. Nickel plated, straight, iron case with one piece 'V' shaped scale without glass front. 6 inch black oxidized scale with white figures. Bulb chamber and stem extensions are steel, copper-plated. 1/2 inch iron pipe thread fixed connection only. **SPECIFY TEMPERATURE RANGE FAHRENHEIT:**

Range	General Application
- 20 to +120	Brine
+ 30 to +160	Hot Water
+ 30 to +240	Hot Water
+ 170 to +270	Hot Oils or Steam
+ 50 to +400	Hot Oils

**LIST EACH**  
 2 Inch Stem  
 Straight .....\$5.00  
 Angle .....\$7.00

**DISCOUNT .....25% OFF**



## AMERICAN SCHAEFFER & BUDENBERG RECORDING THERMOMETERS

FOR BRINE, FOOD PROCESSING, STACK TEMPERATURES, AND GENERAL APPLICATIONS WHERE A GRAPHIC TEMPERATURE RECORD IS REQUIRED.



Fig. 4773

Recording Thermometers give a graphic record of changes in temperature within a range of minus 40° to plus 1000° Fahrenheit or equivalent Centigrade. The standard chart is 10 inches in diameter, with an effective recording chart radius of 3-5/8 inches. A large number of charts with different ranges are available. This instrument is made in a die cast black enameled moisture proof case, with a suspended pen arm of monel metal.

**SPECIFY:** Service thermometer is intended for.

**SPECIFY:** Telechron electric clock (A.C. only) or spring wound clock.

**SPECIFY:** Wall mounted case or flush mounted case.

**SPECIFY:** Working temperature range so we can supply correct charts.

**TYPE 3300 MERCURY ACTUATED.** Dull black enameled case. This type is always recommended except when very long lengths of tubing are necessary. With 5 feet of connecting tubing is 50 feet. bronze armor. The maximum length of connecting tubing is 50 feet. With plain bulb, for recording on any standard 10 inch chart with maximum graduation not exceeding 800° Fahrenheit complete with 100 charts. Two non-corrosive glass recording pens and a bottle of recording ink with ink filler. With Plain Bulb (No Thread).

★ **NET EACH, \$74.00**

With Union Connection Bulb, 3/4 or 1 inch I.P.T. ...★ **NET EACH, \$76.00**

**TYPE 3400 GAS ACTUATED.** Supplied for chart ranges from minus 60° to plus 1000° Fahrenheit. With 5 feet of tubing in bronze armor. Connecting tubing in any length up to 200 feet can be furnished. With Plain Bulb (No Thread).

★ **NET EACH, \$71.50**

With Union Connection Bulb, 3/4 or 1 inch I.P.T. ...★ **NET EACH, \$73.50**

**TYPE 3500 VAPOR TENSION ACTUATED.** Supplied for ranges between minus 25° to plus 400° Fahrenheit. With 5 feet of connecting tubing in bronze armor. Any length up to 200 feet can be furnished. With Plain Bulb (No Thread).

★ **NET EACH, \$66.00**

With Union Connection Bulb, 3/4 or 1 inch I.P.T. ...★ **NET EACH, \$68.00**

For connecting tubing over 5 feet in length Mercury Actuated.

★ **NET FOOT, \$0.75**

For connecting tubing over 5 feet in length Gas or Vapor Tension Actuated ...★ **NET FOOT, \$0.50**

**10 INCH REPLACEMENT CHARTS,** specify by number.

300 in Box ...★ **NET 100, \$2.00**

500 in Box ...★ **NET 100, \$1.85**

1000 in Box ...★ **NET 100, \$1.60**

## McDANIEL SUCTION TEE

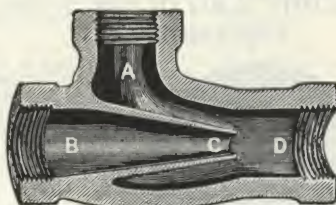


Fig. No. 1282

Can be used to advantage in making all connections on heating jobs. Where condensation returns to the boilers, put it on wherever two returns come together.

Wherever two returns back up on another, it will stop the same—by using the shortest one, getting its steam first at B, and the other and weaker one at A, the stronger one will act as an ejector and cause the weaker one to circulate freely. Connect at D, and carry on to the main waste or return.

Where the pipes are in different sections, one section can be used to make the other circulate.

Use wherever two or more connections are made to the same Steam Trap, as it will cause all condensation to flow freely into the Trap and avoid trouble of one backing up.

This is a Fitting that will make all bad jobs of Steam Heating work well. Stops one Steam Connection from backing-up on another, prevents all noise when heating water by direct blow of steam.

A—Inlet from coils.  
B—Main return, working the suction.

C—End of suction cone.  
D—Outlet to return or waste.

This Suction Tee CANNOT be used to lift liquids.

### LIST PRICES EACH

Size, Inches	Standard Tee		Ex. Heavy Tee
	Black, List Each	Galv., List Each	
1/2	\$1.50	\$1.50	.....
3/4	1.50	1.50	.....
1	2.00	2.00	\$ 3.50
1 1/4	2.25	2.25	4.50
1 1/2	2.75	2.75	5.50
2	3.50	3.50	7.50
2 1/2	5.50	5.50	11.00
3	8.00	8.00	16.00
3 1/2	.....	.....	21.00
4	.....	.....	27.00
5	.....	.....	43.00
6	.....	.....	60.00

### DISCOUNT

Black Standard ..... 25% OFF  
Galvanized Standard .. 5% OFF  
Extra Heavy ..... 15% OFF

## McDANIEL PATENT SYPHON OR WATER LIFTER

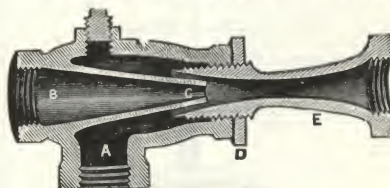


Fig. No. 1281

One of the best and cheapest substitutes for a steam pump that is manufactured. It will lift water 20 feet with any ordinary steam pressure. It is economical in the use of steam, and discharges a full pipe of water when in operation,—when it is once set according to the directions—and requires no attention whatever.

Should be used on all steam ships and places where tanks, vats or pits are to be pumped out or filled.

\* Capacity based on 60 lbs. steam pressure, with syphon near water level.

### LIST PRICES EACH

No.	Pipe Connections, In.		* Cap., Gals. Per Hour	List Each
	Suction and Discharge	Steam		
0	3/4	3/4	400	\$ 7.00
1	1	1	700	8.00
2	1 1/4	1 1/4	1,100	11.00
3	1 1/2	1 1/2	1,600	14.00
4	2	2	3,000	17.00
5	2 1/2	2 1/2	5,000	28.00
6	3	3	7,000	35.00

DISCOUNT ..... 25% OFF

## WATSON & McDANIEL WATER SYPHON PUMP



Fig. 3737

Drains out water wherever it collects while anyone is working water or drain lines. Drains out tubs, sinks, and flooded cellars. Connections are all made with ordinary garden hose, no special fittings or cutting of pipe. Made of brass. No adjusting. Connect the pressure side to the nearest city water tap, the discharge side to the nearest drain or cellar window and drop the pump into the water or connect with a short piece of hose.

★ **NET EACH, \$2.20**

## WATSON & McDANIEL SYPHON PUMP



Fig. 4774

A heavy duty syphon pump for elevating liquids, with 60 pounds of steam it will force 60 feet high with ease. For use where tanks are to be pumped out for filled. All pumps (except No. 12 steam only) can be furnished to operate with water or steam. **SPECIFY WATER or STEAM PRESSURE and HEIGHT WATER IS TO BE LIFTED.**

Size No.	Suction, Inch	Dis- Charge Inch	Steam Pipe To Use	Gal- lons	Cubic Feet	LIST EACH
ALL BRASS						
12	1/2	1/2	1/4	150	20	\$6.00
13	3/4	3/4	3/8	400	52	\$7.00
14	1	1	1/2	700	90	\$8.00
15	1-1/4	1-1/4	3/4	1100	140	\$11.00
16	1-1/2	1-1/2	3/4	1600	210	\$14.00
IRON BODY, BRASS NOZZLE						
17	2	2	1	3000	400	\$17.00
18	2-1/2	2-1/2	1-1/4	5000	660	\$28.00
19	3	3	1-1/2	7000	930	\$35.00
DISCOUNT . . . .				33-1/3% OFF		

DISCOUNT .... 33-1/3% OFF



**XL-96 EJECTOR OR STEAM JET PUMP**

Fig. No. 1279

One of the best all around Ejectors ever produced. Has few equals. See comparative tables. Lifts 20 to 24 feet. Elevates 50 to 75 feet. Lifts 20 feet on 25 lbs. steam and over. Separate couplings. Interchangeable parts.

Nos. 7, 8 and 9 have iron bodies, balance in brass. No 10, all iron, except jets.

Ejectors are shipped without Strainers. We can furnish them where desired up to No. 6.

\* Capacity based on 65 lbs. steam pressure, 3 ft. lift.

**LIST PRICES EACH**

Size	Pipe Connections, In.		*Cap., Gals. Per Hour	List Each
	Steam	Suction and Delivery		
No. 1, brass	3/8	1 1/2	240	\$ 8.00
No. 2, brass	1/2	2	500	10.00
No. 3, brass	3/4	1	840	15.00
No. 4, brass	1	1 1/4	1,350	20.00
No. 5, iron	1	1 1/2	1,950	20.00
No. 5, brass	1	1 1/2	1,950	25.00
No. 6, iron	1 1/4	2	3,500	27.50
No. 6, brass	1 1/4	2	3,500	35.00
No. 7, iron	1 1/2	2 1/2	5,700	40.00
No. 7, brass	1 1/2	2 1/2	5,700	50.00
No. 8, iron	2	3	9,500	50.00
No. 8, brass	2	3	9,500	70.00
No. 9, iron	2	3 1/2	13,600	70.00
No. 9, brass	2	3 1/2	13,600	105.00
No. 10, iron	2 1/2	4	18,400	95.00
No. 10, brass	2 1/2	4	18,400	145.00

DISCOUNT ..... 50% OFF

**PENBERTHY HYDRAULIC EJECTOR**

Fig. 4775

For elevating or mixing liquids by use of water pressure. For operating pressures from 15 to 200 pounds. Requires 4 pounds pressure for each foot elevation. When used for pulling a vacuum the discharge end must be water sealed. All steam bronze.

Size No.	Inlet I.P.T.	Suction & Discharge	LIST EACH
62	3/8	3/4	\$10.00
63	1/2	1	\$15.00
64	3/4	1-1/4	\$20.00
65	1	1-1/2	\$25.00
66	1-1/4	2	\$35.00
67	1-1/2	2-1/2	\$50.00
68	2	3	\$70.00

DISCOUNT ..... 60-10% OFF

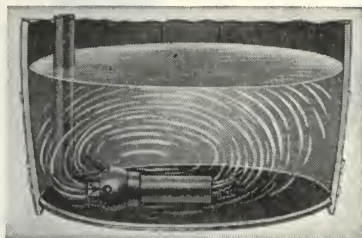
**PENBERTHY NOISELESS WATER HEATER**

Fig. 351-P

Steam operated. Open tank type. Operates on 10 to 125 pounds pressure. A quick water or liquid heater without screeching noises. There is no heat lost through condensation of steam, all heat units enter into the liquid. Be sure to use a nipple 10 to 12 inches long.

Size No.	Steam Pipe Inches	Discharge Pipe Inches	LIST EACH
F	1/4	3/8	\$1.50
G	3/8	1/2	\$1.75
H	1/2	1	\$2.00
J	3/4	1	\$2.50
K	1	1-1/4	\$3.00
L	1-1/4	1-1/2	\$4.00
M	1-1/2	2	\$5.00
N	2	2-1/2	\$8.00

DISCOUNT ..... 25% OFF

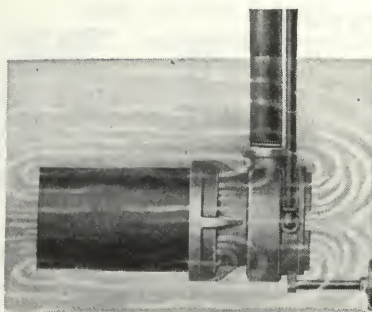
**PENBERTHY WATER HEATER**

Fig. 4776. Mfrs. XL32

Steam operated, high temperature open tank. Heats to any temperature up to boiling (212°F.) and operates on any steam pressure from 3 to 140 pounds. For use where the range of pressure and temperatures are greater than average. Made of steam bronze. If data for capacities at specified steam pressures and temperature ranges is needed it can be furnished. Discharge nipple is extra, must be a minimum length of 12 to 18 inches.

Steam Pipe I.P.T.	Discharge Pipe I.P.T.	LIST EACH
1/2	2	\$10.00
3/4	2-1/2	\$15.00
1	3	\$20.00
1-1/4	4	\$35.00
1-1/2	5	\$50.00
2	7	\$70.00

DISCOUNT ..... 25-5% OFF

**BLAKESLEE JET PUMP With Brass Fittings**

Fig. No. 1277

Style "A"

This is a standard and well-known device for raising water and other liquids in tanneries, breweries, etc. It is simple, reliable and will stand hard use.

**LIST PRICES EACH**

Suction Pipe, In.	Discharge Pipe, In.	Steam Pipe, In.	Steam Opening, In.	Cap. per Min., Gals.	List, Each
3/4	1/2	3/8	3/8	8	\$ 8.00
1	3/4	1/2	1/2	15	10.00
1 1/4	1	1/2	1/2	20	12.00
1 1/2	1 1/4	3/4	3/4	30	14.00
2	1 1/2	1	1	40	16.00
2 1/2	2	1	1	50	20.00
3	2 1/2	1	1	60	24.00

DISCOUNT ..... 40% OFF

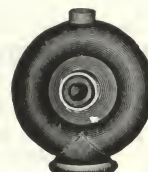
**BLAKESLEE BILGE PUMPS**

Fig. No. 1278

Specially adapted to the use of vessels of all kinds, tanneries and for similar purposes. These Pumps are adapted to raising a large amount of water with but little steam. They are not designed to raise water to very great heights, but make from 18 to 20 feet suction. The water may be conveyed from the pump by a trough, or a discharge pipe may be connected as desired. Every pump warranted. No possibility of freezing.

\* Capacity based on 50 lbs. steam pressure.

**LIST PRICES EACH**

Suction Pipe, In.	Discharge Pipe, In.	Steam Pipe, In.	* Cap., Gals. per hour	List, Each
1 1/2	1 1/4	1	2400	\$10.00
2	1 1/2	1	3000	14.00
3	2 1/2	1	3600	16.00
4	3	1 1/4	4500	20.00
6	4	1 1/2	8000	30.00

DISCOUNT ..... 25% OFF

**DIRECTIONS.**—Connecting steam-pipe to boiler, with globe valve in a convenient place, run it to suitable place for pump; screw pump to steam-pipe by a common thimble; afterward attach suction and discharge pipe, and the pump is ready for use.

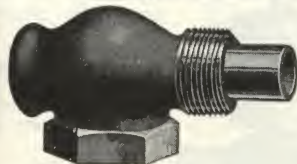
**AMERICAN JET PUMPS—For Steam**

Fig. 1285

Used to draw water and discharge it above the surface level. For filling tanks, drainage, etc.

No.	Size of Suction, Inches	Size of Delivery, In.	Size of Connection, In.	Gals. Per Hour	List Each
00	1/2	3/8	1/4	250	\$ 5.00
0	3/4	1/2	3/8	375	6.00
1	1	3/4	1/2	500	7.50
2	1 1/4	1	3/4	1,000	10.00
3	1 1/2	1 1/4	1	1,500	12.50
4	2	1 1/2	1 1/4	2,000	15.00
5	2 1/2	2	1 1/2	2,800	17.50
6	3	2 1/2	2	3,800	25.00

DISCOUNT ..... 55% OFF



PENBERTHY AUTOMATIC CELLAR DRAINERS

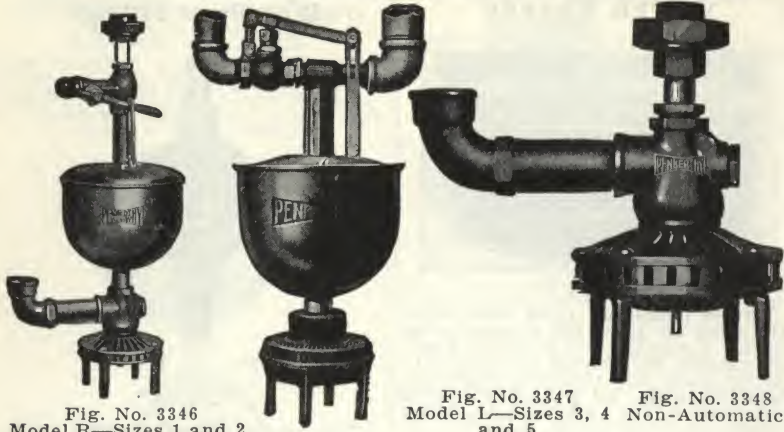


Fig. No. 3346  
Model R—Sizes 1 and 2

Fig. No. 3347  
Model L—Sizes 3, 4 Non-Automatic  
and 5

For removing seepage, flood or back water from point below natural drainage level of sewer. In buildings, basements, sumps, tanks, settling basins, flywheel and elevator pits, etc. Requires no attention. A water pressure ejector of high capacity, automatically operated by a float-controlled, quick-opening-and-closing valve. Ejector cannot operate until water has raised float to highest point, as water is ejected, it travels down length of slot before weight of float closes valve. Works for long periods and often preventing considerable wear, leakage and dribbling of water. Working parts above water, no slime or corrosion to interfere with operation. Foot valve in strainer seals suction pipe when drainer stops working, holding water in pipe, and is primed ready to start instantly, prevents flooding of cellars if water pressure is insufficient to operate ejector. Compact. Made of brass, except copper float. Combination pressure water strainer and union. Easy to clean strainer.

\* Capacity rating is based on 20 to 80 lbs. pressure 3 to 18 ft. elevation. It represents actual drainage of water, not combined discharge of operating and drainage water.

LIST PRICES EACH

Size No.	Model	Automatic List Each	Non-Automatic List Each	Supply Pipe In.	Discharge Pipe In.	*Cap. Gals. per Hr.	
						Min.	Max.
1	R	\$ 25.00	\$15.00	1/2	1	115	700
2	R	40.00	25.00	3/4	1 1/4	180	1200
3	L	55.00	35.00	1	1 1/2	310	1650
4	L	80.00	50.00	1 1/4	2	450	2400
5	L	110.00	70.00	1 1/2	2 1/2	600	3200

PRICE .....LIST NET

WEIL AUTOMATIC CELLAR DRAINERS

THE ELECTRIC WATER BOY

Low speed, heavy duty, quiet operating  
Complete with automatic control  
and cord



Fig. 4769

Centrifugal open impeller type pump, casing made of close grained cast iron. Impeller of cast bronze. Rustless steel strainer. Stainless steel shaft, 5/8 inch diameter, turned and ground to size. The hanger pipe is made of seamless steel. It covers the shaft and supports the pump casing. The weight of the impeller and shaft are carried by extra large size ball thrust bearing. The lower bearing is made of bronze, of extra length and is grease lubricated. The discharge pipe is 1-1/4 inch diameter and is screwed into the casing and supported at top and extends above floor plate. Heavy, large, copper float to actuate the float switch. Mercury type float switch mounted in a dust-proof cast iron case top of motor. Condenser type motor, single phase, 60 cycle, 1740 R.P.M. 40° motor is furnished as standard equipment. No radio interference.

List prices are for pumps with single phase, AC, 50 or 60 cycle, 110 or 220 volt motors. For single phase, AC, 25 or 30 cycle motors either 110 or 220 volt, add \$10.00 list extra. For DC, 32, 110 or 220 volt, add \$8.00 list extra. For 3 phase, 50 or 60 cycle, AC motors, either 110 or 220 volt, add \$20.00 list extra.

Unit No.	Discharge Inches	Sump Depth Feet	H.P. Motor	Shipping Weight Pounds	Fig. 4769 LIST without floor plate or discharge pipe	Fig. 4770 LIST with floor plate and discharge pipe
WB-2	1-1/4	2	1/4	120	\$39.50	\$47.50
WB-3	1-1/4	3	1/4	145	\$47.00	\$55.00
WB-5	1-1/4	5	1/4	175	\$56.00	\$65.00
WB-7	1-1/4	7	1/3	215	\$100.00	\$110.00
WB-8	1-1/4	8	1/3	240	\$115.00	\$125.00

PRICES .....LIST NET

PENBERTHY AUTOMATIC ELECTRIC SUMP PUMP

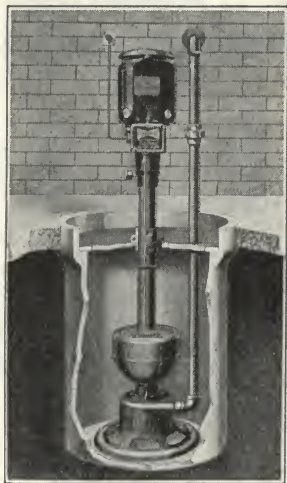


Fig. 3562

MOTOR. Repulsion induction, 115 volts, 60 cycle A. C. Ball thrust bearings. 1/4 H. P. 1750 R.P.M. operating cost is 1.3 cents an hour.

CIRCUIT BREAKER. Protects motor against overloading.

SWITCH. Mercury type. Dependable. Adapted to float operation. Insulated. Fully enclosed.

IMPELLER SHAFT. Bronze, full enclosed. Held to perfect alignment and supported by bearings, flexible spring coupling relieves motor shaft of all undue strain.

PUMP. Bronze, centrifugal type, high capacity and efficiency.

MATERIAL. Copper and bronze.

CAPACITY. Approximate gallons each hour against discharge head of: 1 foot, 3600; 5 foot, 3200; 10 foot, 2600; 15 foot, 1900; 20 foot, 1000.

No. LIST Size EACH	Pipe Conn. Ins.	Sump Depth Feet	Pump Height Ft.	Shp. In.	Wt. Lbs.
1K	\$ 65.00	1 1/4	2	3	7 1/4
2K	\$ 85.00	1 1/4	3	4	7 1/4
3K	\$100.00	1 1/4	4	5	6
4K	\$125.00	1 1/4	6 1/2	7	11
5K	\$150.00	1 1/4	8 1/2	9	10

PRICE .....LIST NET

Model 3562-36. 1/4 H.P. Motor 1750 R.P.M. Mercury Switch in unbreakable case. Fusetron unit protects motor against overload or short circuits. All bronze construction throughout. SPECIFY: 115 volt, 60 cycle or 220 volt, 60 cycle. Discharge pipe, 1 inch. 3 feet 4-1/2 inches high. Discharge head; 2 feet, 1500 gallons each hour; 2 feet, 750 gallons each hour.

LIST EACH, \$39.50

PRICE .....LIST NET

PENBERTHY MODEL S CELLAR DRAINER

Made of copper and bronze throughout. Operates by water or steam pressure. An efficient low priced drainer. 1/2 inch supply pipe. 1 inch discharge pipe. Maximum capacity is 600 gallons each hour.



Fig. 4518

AUTOMATIC  
★ NET EACH, \$14.50  
NON-AUTOMATIC  
★ NET EACH, \$10.00



BRONZE WHISTLE VALVE



Fig. 1212  
Valve seat carefully ground and tested. Adjustable lever.

LIST PRICES EACH	
Size, Inches	LIST EACH
3/8	\$2.00
1/2	2.50
3/4	3.50
1	3.50
1-1/4	5.00
1-1/2	6.00
2	9.00

DISCOUNT 9% OFF PRICE LIST NET

STEAM WHISTLES



Fig. No. 1211

Made of high grade bronze with steel spindle. Can be used with steam or air. Bell is adjustable for high or low pressure to regulate the tone.

LIST PRICES EACH

		Fig. No. 1211	Fig. No. 1213
		WITH VALVE	
Bell Diam., Inches	Pipe, Inches	LIST EACH	LIST EACH
1	1/4	\$ 3.10	\$ 2.20
1 1/4	3/8	3.75	2.75
1 1/2	1/2	4.00	3.00
2	1/2	5.50	4.35
2 1/2	3/4	6.50	5.25
3	1	8.50	7.25
3 1/2	1	11.50	9.50
4	1 1/4	15.00	12.00
5	1 1/2	22.50	19.00
6	2	33.00	24.00

OIL CUP GLASSES

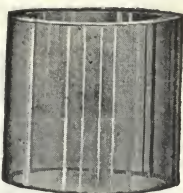


Fig. 169G

Outside Diameter Inches	Length Inches	LIST DOZEN
1	7/8	\$2.40
1-1/8	1	\$3.00
1-1/4	1-1/8	\$3.60
1-1/2	1-3/8	\$4.30
1-3/4	1-5/8	\$4.80
2	1-7/8	\$5.20
2-1/4	2-1/8	\$5.60
2-1/2	2-1/4	\$5.90
2-1/2	2-3/8	\$5.90
3	2-3/4	\$7.70
3	3	\$7.90
3-1/2	4	\$9.80
4-1/4	5	\$12.30
4-1/2	5	\$29.50
4-1/2	6	\$29.50

DISCOUNT 50-10% OFF

CORK WASHERS FOR OIL CUP GLASSES

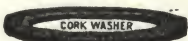


Fig. 169W

Outside Diameter	LIST DOZEN
1 Inch	\$0.18
1-1/8 Inch	\$0.24
1-1/4 Inch	\$0.24
1-1/2 Inch	\$0.30
1-3/4 Inch	\$0.36
2 Inch	\$0.40
2-1/4 Inch	\$0.50
2-1/2 Inch	\$0.50
3 Inch	\$0.60
3-1/2 Inch	\$0.75
4-1/4 Inch	\$0.75
4-1/2 Inch	\$1.50
4-1/2 Inch	\$1.75

DISCOUNT 40% OFF

PATENT GONG WHISTLE

All iron, very substantially made. Bells can be adjusted to produce various distinctive tones. Adapted to 100 lbs. or greater steam or air pressure. Prices do not include whistle valve.

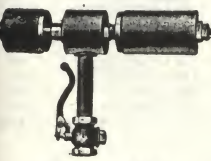


Fig. No. 1214

LIST PRICES EACH

Bell Diam., Inches	Pipe, Inches	LIST EACH
3	3/4	\$10.00
4	1 1/4	12.00
6	1 1/2	16.00
8	2	20.00
10	2 1/2	30.00
12	3	50.00

DISCOUNT LIST NET

THE CHICAGO AUTOMATIC INJECTOR



Fig. No. 1275

Operates successfully under the severe conditions of traction and stationary engineering. Extremely simple in construction, easy to clean and repair.

\*These capacities are obtained by actual measurement on the following basis:

Steam, 60 to 80 pounds. Lift, 1 to 3 feet. Feed water, 76 degrees Fahrenheit.

When working from a ten ft. lift, the above capacities will be reduced about 10%; from a 15 ft. lift, 17%.

LIST PRICES EACH

		*H. P. Based on		List Each
Pipe Conn. In.	Max. Cap. Gals. Per Hour	Ordinary Tubular Boiler	4 to 11	
0	80	4 to 11	18.00	\$16.00
0	135	10 to 19	20.00	18.00
1	180	15 to 24	25.00	20.00
1	260	18 to 34	30.00	25.00
2	355	20 to 47	40.00	30.00
3	475	40 to 64	45.00	40.00
4	600	45 to 80	55.00	45.00
5	800	55 to 106	60.00	55.00
6	1000	75 to 134	75.00	60.00
7	1400	100 to 181	90.00	75.00
8	1900	115 to 254	110.00	90.00
9	2400	150 to 320	125.00	110.00
10	3000	190 to 400	150.00	125.00
11	3600	275 to 480	180.00	150.00
12	4200	375 to 560	200.00	180.00
13	4500	400 to 600		200.00

DISCOUNT 50% OFF

THE LEADER INJECTOR

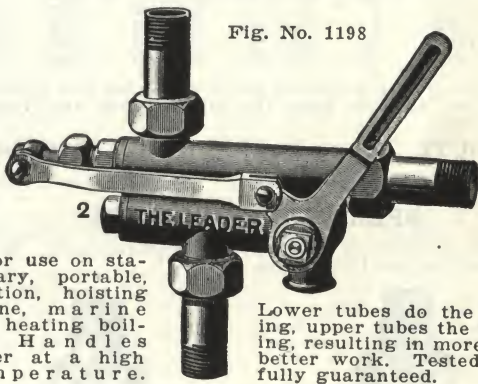


Fig. No. 1198

For use on stationary, portable, traction, hoisting engine, marine and heating boilers. Handles water at a high temperature.

Lower tubes do the lifting, upper tubes the forcing, resulting in more and better work. Tested and fully guaranteed.

LIST PRICES EACH

		Pipe Conn., In.		H. P. of Boiler	*Capacity Gals. per Hour
No.	List Each	Steam	Suction and Feed		
1	\$16.00	3/4	3/4	3 to 7	60
2	18.00	3/4	3/4	7 to 10	90
3	22.00	1 1/4	1 1/4	12 to 18	150
4	25.00	1 1/4	1 1/4	19 to 25	220
5	30.00	1 1/4	1 1/4	25 to 35	300
6	35.00	1 1/4	1 1/4	35 to 45	400
7	40.00	1 1/4	1 1/4	45 to 60	500
8	45.00	1 1/4	1 1/4	60 to 70	600
9	55.00	1 1/4	1 1/4	70 to 90	750
10	65.00	1 1/4	1 1/4	100 to 125	1000
11	75.00	1 1/4	1 1/4	125 to 150	1300
12	90.00	1 1/4	1 1/4	150 to 200	1800

\*Capacity based on 60 lbs. steam pressure. DISCOUNT 45% OFF



## PENBERTHY REGULAR AUTOMATIC INJECTOR



Fig. No. 1265. Stock Injector.

Style Left and Back.

Suction Left. Discharge Back.

The Penberthy Automatic Injector has been too long upon the market and is too thoroughly familiar to the steam user and the steam supply trade to need any introduction or explanation.

\*Capacity based on 60 to 110 lbs. steam pressure. 1 to 3 ft. lift.

Horse Power "A"—For ordinary tubular boiler.

Horse Power "B"—Rating based on 30 lbs. evaporation per H. P. per hour.

### LIST PRICES EACH

Size	List, Each	Pipe Connection In.	Horse Power "A"	Horse Power "B"	*Capacity Gals., per Hour	
					Max.	Min.
O	\$15.00	1/4	3 to 6	4 to 8	60	40
OO	16.00	1/2	4 to 8	6 to 12	80	45
A	18.00	1/2	8 to 16	10 to 20	135	70
AA	20.00	1/2	12 to 22	15 to 30	180	100
B	25.00	3/4	17 to 32	22 to 45	260	140
BB	30.00	3/4	20 to 45	25 to 60	355	160
C	40.00	1	40 to 65	45 to 80	475	250
CC	45.00	1	45 to 80	50 to 100	600	325
D	55.00	1 1/4	50 to 100	60 to 135	800	425
DD	60.00	1 1/4	75 to 135	85 to 165	1,000	525
E	75.00	1 1/2	100 to 180	125 to 235	1,400	740
EE	90.00	1 1/2	115 to 255	150 to 320	1,900	850
F	110.00	2	160 to 320	200 to 400	2,400	1,275
FF	125.00	2	200 to 400	250 to 500	3,000	1,600
G	150.00	2 1/2	300 to 500	325 to 600	3,600	1,875
GG	200.00	2 1/2	375 to 600	400 to 750	4,200	2,150

N. B.—Where Injectors are ordered by size connections we always send the size having the larger capacity.

DISCOUNT ..... 45% OFF

### SPECIAL CONNECTIONS

Stock models to suit special requirements. Same dimensions and list as Fig. No. 1265.

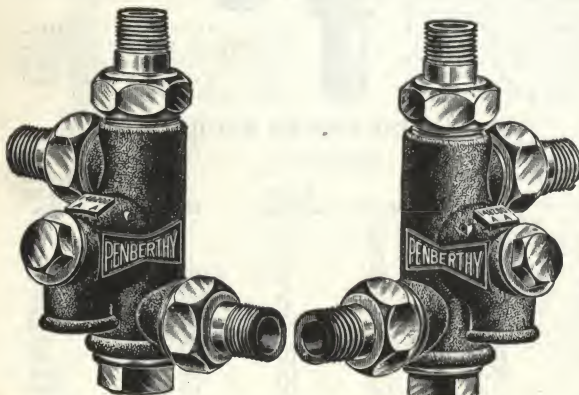


Fig. No. 2461-P  
Style Left and Right  
Suction Left. Discharge Right.

Fig. No. 2471-P  
Style Right and Left.  
Suction Right. Discharge Left.

## PENBERTHY AUTOMATIC INJECTOR



Fig. No. 2465

### For High Pressure or Hot Water

Adapted for supplying marine, stationary, testing and experimental boilers furnishing high pressure steam to several expansions. Smaller sizes used for boilers of plowing, traction and harvesting machine engines with compounded cylinders.

Construction differs slightly from the regular automatic injector in order to adjust the range to higher steam pressure and greater lift. Has relief valve at bottom for starting on low pressure.

\*Capacity based on 180 lbs. steam pressure, water at 74°, lift 3 feet.

### LIST PRICES EACH

Size No.	List, Each	Pipe Connections, In.	Supplying Boiler of Horse Power	*Cap., Gal. per Hr.
325-O	\$15.00	1/4	3 to 6	55
326-OO	16.00	1/2	4 to 8	76
328-AA	20.00	1/2	12 to 22	170
330-BB	30.00	3/4	20 to 45	350
332-CC	45.00	1	45 to 80	570
334-DD	60.00	1 1/4	75 to 135	940
336-EE	90.00	1 1/2	115 to 255	1,800
338-FF	125.00	2	200 to 400	2,850
340-GG	200.00	2 1/2	375 to 600	4,000

DISCOUNT ..... 45% OFF

Fig. 4768

### For Low Pressure and City Water Supply

For operating on steam pressures on 15 to 100 pounds such as is used in dairies, etc. For water supply from city mains, overhead tanks, etc.

Size No.	Pipe Conn.	—Gallons Each Hour—		LIST EACH
		Maximum	Minimum	
526-OO	3/8	80	55	\$16.00
528-AA	1/2	180	125	20.00
530-BB	3/4	350	270	30.00
532-CC	1	585	480	45.00

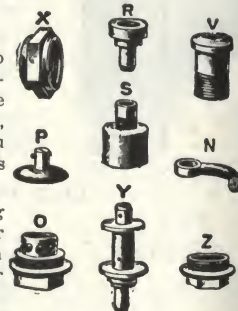
DISCOUNT ..... 45% OFF

## REPAIR PART FOR PENBERTHY INJECTORS

Fig. 1265X

In ordering Injector Parts do not fail to send the serial number and letter, which will be found on top of the overflow, otherwise we must write you for this information and thus delay shipment.

In referring to or ordering parts, call them by letter or name as in cut, and not by such names as "upper valve," "lower valve," etc.



### LIST PRICE PER PART

Size Injector	O or OO	A or AA	B or BB	C or CC	D or DD	E	EE	F	FF	G or GG
R—Steam Jet.....	\$0.25	\$0.35	\$0.45	\$0.55	\$0.65	\$0.75	\$0.75	\$0.85	\$1.00	\$2.00
S—Suction Jet.....	.25	.35	.45	.55	.65	.75	.75	.85	1.00	3.00
Y—Delivery Jet.....	1.25	1.50	2.00	2.50	3.00	3.75	4.50	5.50	6.50	2.00
X—Coupling Nut.....	.25	.30	.40	.50	.60	1.25	1.25	1.50	1.50	2.00
V—Tail Pipe.....	.25	.30	.40	.50	.60	.80	.80	1.00	1.00	1.25
Z—Overflow Cap.....	.40	.50	.60	.70	.80	.80	.80	.90	.90	1.50
P—Overflow Valve.....	.40	.50	.60	.75	.90	1.00	1.10	1.25	1.25	1.75
N—Overflow Hinge.....	.10	.10	.15	.15	.15	.20	.20	.20	.20	.30
O—Plug.....	.60	.80	1.00	1.25	1.50	1.75	1.75	2.00	2.00	4.00
Strainer.....	.40	.40	.50	.50	.60	.75	.75	1.00	1.00	1.50

PRICE ..... LIST PLUS 35%



U. S. AUTOMATIC INJECTORS

The U. S. Automatic Injectors need no comment. Their reputation has been made.  
\* Capacity based on 60 to 80 lbs. steam pressure, 1 to 3 ft. lift.  
† Horse Power—For ordinary tubular boiler.  
‡ Horse Power—Rating based on 30 lbs. evaporation per horse power per hour.

LIST PRICES EACH

Size	List Each	Pipe Connection, In.	†Horse Power	‡Horse Power	*Capacity, Gallons per Hour	
			See Description	See Description	Max.	Min.
00	\$13.00	1/4	1 to 3	1 to 4	36	20
0	14.00	3/8	3 to 6	4 to 8	65	35
1	16.00	3/8	4 to 8	6 to 12	90	55
2	18.00	1/2	8 to 16	10 to 20	135	65
3	20.00	1/2	12 to 22	15 to 30	180	100
4	25.00	3/4	17 to 32	22 to 45	260	140
5	30.00	3/4	20 to 45	25 to 60	355	170
6	40.00	1	40 to 65	45 to 80	475	300
7	45.00	1	45 to 80	50 to 100	600	350
8	55.00	1 1/4	50 to 100	60 to 135	800	425
9	60.00	1 1/4	75 to 135	85 to 165	1000	525
10	75.00	1 1/2	100 to 180	125 to 235	1400	800
11	90.00	1 1/2	115 to 255	150 to 320	1900	950
12	110.00	2	160 to 320	200 to 380	2400	1300
13	125.00	2	200 to 400	250 to 500	3000	1600
14	150.00	2	300 to 500	325 to 550	3600	2000
15	175.00	2 1/2	350 to 550	400 to 600	4000	2200
16	200.00	2 1/2	400 to 600	500 to 750	4500	2500

DISCOUNT ..... 45% OFF

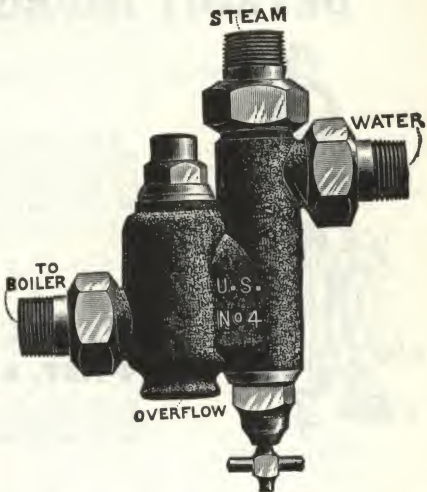


Fig. No. 1266. Regular Style. Adapted to either side of Boiler.

SPECIAL CONNECTIONS FOR U. S. AUTOMATIC INJECTOR

For Traction and Portable Engines

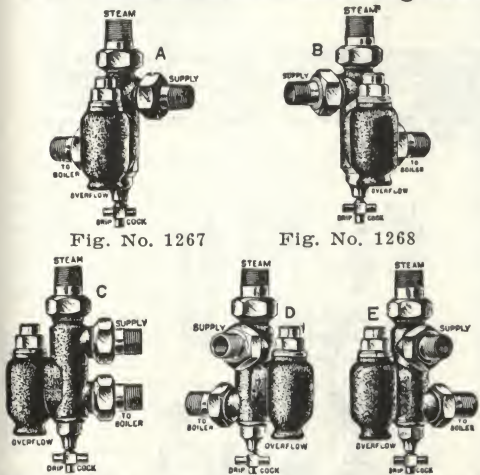


Fig. No. 1269 Fig. No. 1270 Fig. No. 1271  
These styles we furnish only in the half and three-quarter inch sizes—Nos. 2, 3, 4 and 5. Same list as regular style, Fig. No. 1266, shown above.

REPAIRS OR PARTS FOR U. S. INJECTOR

When ordering parts you will save time and avoid mistakes if you will always designate the part by the letter or name used in the price list on this page. It may assist you in determining what parts are required if you will bear in mind the following:

Steam Jet—Subject to little wear and rarely needs renewing.

Suction Jet—Subject to considerable wear. (A wrench made of ordinary gas pipe will answer for removing old and inserting new one.)

Delivery Tube—Subject to most wear and most likely to be the first part required.

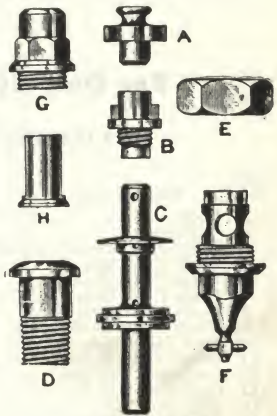


Fig. No. 1266

LIST PRICES PER PART

Name of Parts	Injector Sizes						
	000 to 3	4 & 5	6 & 7	8 & 9	10 & 11	12, 13 & 14	
D—Tail Pipe	\$0.60	\$0.70	\$0.80	\$1.00	\$1.50	\$2.00	
E—Tail Pipe Nut	\$0.60	\$0.80	\$1.00	\$1.30	\$1.70	\$2.40	
A—Steam Jet	\$1.60	\$2.00	\$2.30	\$2.70	\$3.20	\$4.00	
B—Suction Jet	\$1.00	\$1.50	\$2.50	\$3.00	\$3.50	\$4.00	
C—Delivery Tube	\$2.00	\$2.20	\$2.90	\$3.50	\$4.00	\$5.00	
F—Delivery Cap	\$2.00	\$2.20	\$2.90	\$3.50	\$4.00	\$5.00	
G—Overflow Cap	\$1.60	\$1.90	\$2.00	\$2.50	\$3.00	\$4.00	
H—& Valve							

DISCOUNT ..... 20% OFF

THE HANCOCK INSPIRATOR, "STATIONARY" TYPE

WORKING RANGES

On A Lift, Feet	Starts With Steam Pressure, Pounds	Works Up to Steam Pressure, Pounds
WITH COLD WATER FEED		
5	25	200
10	30	200
15	30	170
20	35	110
25	45	90

WITH FEED WATER AT 100° F.		
5	25	150
10	40	140
15	40	130
20	45	90
25	50	75

WITH HOT FEED WATER  
When used on a short lift or when the water flows to the Inspirator will take feed water up to 130 degrees Fahrenheit with steam pressures from 80 to 150 pounds. As the lift is increased the temperature of the feed water must be lowered.

This is the simplest form of double tube machine. For general all-round service it has no equal. Its operation is the same for all conditions within the scope of its wide working range. Requires no adjustment for varying steam pressures.

Size Number	LIST EACH	Weight, Pounds	Size of Steam Pipe, Inches	Size of Suction and Delivery, Inches	Size of Overflow Pipe, Inches	Gallons Each Hour, 2 Feet Lift, 60 Pounds
7 1/2	\$ 11.00	3 3/4	3/8	3/8	1/4	60
8 3/4	12.00	4 1/2	3/8	1/2	3/8	60
10	12.00	4 1/2	3/8	1/2	3/8	90
12 1/2	16.00	6 3/4	1/2	3/4	1/2	120
15	16.00	6 3/4	1/2	3/4	1/2	220
17 1/2	27.00	9 3/4	3/4	1	3/4	300
20	27.00	9 3/4	3/4	1	3/4	420
22 1/2	37.00	16	1	1 1/4	1	540
25	37.00	16	1	1 1/4	1	720
30	50.00	22	1 1/4	1 1/2	1 1/4	900
35	60.00	25	1 1/4	1 1/2	1 1/4	1260
40	70.00	32	1 1/2	2	1 1/2	1740
45	80.00	37	1 1/2	2	1 1/2	2230
50	98.00	54	2	2 1/2	2	2820
55	115.00	62	2	2 1/2	2	3480

DISCOUNT ..... 12% OFF

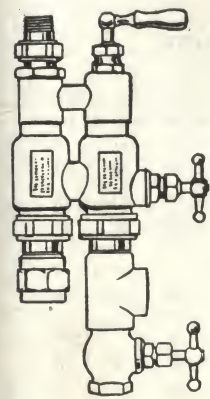


Fig. No. 1264.



# DETROIT IMPROVED STANDARD LUBRICATOR

## DOUBLE CONNECTION

FOR STATIONARY ENGINES



Fig. No. 1299

This lubricator is intended especially for the better classes of engines, and represents the very highest development in its line. It is the most convenient, most durable and most reliable sight feed lubricator made, and has been used exclusively for several years past by upwards of nine-tenths of the prominent American builders of stationary engines.

Furnished in brass only.

### ★ NET PRICES EACH

Size.....	1/2 Pint	1/2 Pint	1 Pint	1 Quart	1/2 Gal
For Cylinder, inches.....	Under 10	10 to 12	12 to 18	18 to 30	30 and over

★ NET, EACH ..... \$11.25 \$11.75 \$13.50 \$17.25 \$25.75

Pipe Thread on Support Arm, inches.....	1/4	1/2	3/4	1	1 1/2
Size of Sight-Feed Glass.....	5/8 x 2 1/2	3/4 x 3	3/4 x 3 1/4	3/4 x 3 1/2	3/4 x 3 3/4
Size of Gauge Glass.....	5/8 x 2 1/2	3/4 x 3 1/4	3/4 x 4 3/8	3/4 x 4 3/8	3/4 x 6

## REPAIR PARTS

For Detroit Improved Standard Lubricator—Double Connection

### LIST PRICES EACH

Part No.	Name of Part	1/2 Pint	1/2 Pint	1 Pint	1 Quart	1/2 Gallon
1X	Body.....	\$5.00				
2	Condenser.....	2.25	\$2.25			
3	Lower Feed Arm and Nozzle.....	1.75				
4	Upper Feed Arm.....	1.00				
5	Lower Gauge Arm.....	1.00				
7	Drain Valve Body.....	.55	.55	\$ .55	\$ .55	
8	Drain Valve Stem.....	.75	.75	.75	.75	
9	Water Valve Centerpiece.....	.40				
10	Feed Valve Stem.....	.40				
11	Steam Valve Packing Nut.....	.25	.25	.25	.25	\$ .25
12	Condenser Tail Nut.....	.40	.40	.40	.40	.40
13	Condenser Tail Pipe.....	.35	.35	.35	.35	.35
16	Filler Plug Body.....	.75	.75	.75	.75	
17	Feed or Gauge Arm Plug.....	.40	.40	.40	.40	
18	Glass Packing Nut.....	.40	.40			
19	Vent Stem.....	.50	.50	.50	.50	.50
21	Steam Valve Centerpiece.....	.50	.50	.50	.50	.50
25	Water Tube.....	.30				
26	Oil Tube.....	.30				
31X	Body.....	6.00				
32	Lower Feed Arm and Nozzle.....	2.00	2.00	2.00	2.00	
33	Upper Feed Arm.....	1.15	1.15	1.15	1.15	
34	Water Valve Centerpiece.....	.45	.45	.45	.45	
35B	Feed Valve Packing Nut.....	.25	.25	.25	.25	
36	Water Valve Packing Nut.....	.25	.25	.25	.25	
37	Feed Valve Stem.....	.40	.40	.40	.40	
39	Feed Glass Packing Nut.....	.40	.40	.40	.40	
40	Feed Arm Plug.....	.50	.50	.50	.50	
41	Water Valve Stem.....	.40	.40	.40	.40	
43	Water Tube.....	.30				
44	Oil Tube.....	.30				
51X	Body.....	8.00				
52	Condenser.....	2.50				
53	Upper Gauge Arm.....	1.15	1.15			
54	Lower Gauge Arm.....	1.00	1.00			
55	Support Arm Tail Piece.....	.50	.50	.50	.50	
56	Support Arm.....	1.50	1.50	1.50	1.50	
58	Gauge Glass Packing Nut.....	.45	.45			
59	Support Arm Tail Nut.....	.50	.50	.50	.50	
61	Water Tube.....	.30				
62	Oil Tube.....	.35				
71X	Body.....	10.50				
72	Condenser.....	3.25				
74	Water Tube.....	.35				
75	Oil Tube.....	.40				
76	Upper Gauge Arm (filler).....	1.00	1.00			
77	3/4 In. Heavy Gas Nets, Doz.....	.35	.35			
81	Body.....	15.00				
82	Condenser.....	7.50				
83	Lower Gauge Arm.....	1.50				
84	Drain Valve Body.....	1.50				
85	Drain Valve Stem.....	1.50				
87	Support Arm.....	4.50				
88	Filler Plug Body.....	1.25				
90	Support Arm Tail Nut.....	1.15				
91	Water Tube.....	.50				
92	Oil Tube.....	.65				
550	Handle Follower.....	.20	.20	.20	.20	.20
647	3/4 In. Light Gaskets, Dozen.....	.35	.35	.35	.35	.35
653	3/4 In. Light Gaskets, Dozen.....	.35	.35			

The numbers indicate the parts and should be mentioned on your order. Also specify size and shop number of lubricator.

Diagram illustrates pint size lubricator and does not show all repair part numbers given in list.

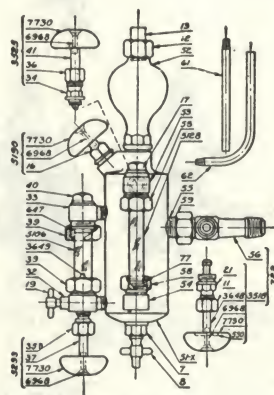


Fig. 1299

### LIST PRICES EACH

Part No.	Name of Part	1/2 Pint	1/2 Pint	1 Pint	1 Quart	1/2 Gallon
722	Support Arm Complete.....	\$3.00	\$3.00	\$3.00	\$3.00	
899	Support Arm Complete.....					\$6.00
1026	Support Arm Tail Piece.....					.75
3518	Steam Valve Complete.....	1.50	1.50	1.50	1.50	1.50
3520	Water Valve Complete.....	1.35				
3525	Water Valve Complete.....	1.35	1.35	1.35	1.35	1.35
3648	Steam Valve Stem.....	.40	.40	.40	.40	.40
3649	Feed Nozzle.....	.25	.25	.25	.25	.25
5101	3/4 x 2 1/2 In. Sight Feed or Gauge Glass.....	.25				
5104	3/4 x 6 In. Gauge Glass.....					.30
5106	3/4 x 3 In. Feed Glass.....	.25	.25	.25		
5107	3/4 x 3 1/4 In. Feed Glass.....					.30
5128	3/4 x 4 3/8 In. Gauge Glass.....			.25	.25	
5129	3/4 x 3 1/4 In. Gauge Glass.....	.25				
5190	Filler Plug Complete.....	1.00	1.00	1.00	1.00	
5195	Filler Plug Complete.....					1.50
5293	Feed Valve Complete.....	.90	.90	.90	.90	.90
5296	Feed Valve Complete.....	.90				
6968	No. 10—24 x 1/2 In. F. H. Machine Screw.....	.03	.03	.03	.03	.03
7730	Handle.....	.30	.30	.30	.30	.30

PRICE, REPAIRS.....

LIST NET



DETROIT IMPROVED STANDARD LUBRICATOR

SINGLE CONNECTION LUBRICATOR

REPAIR PARTS

For Single Connection Lubricator

FOR TRACTION ENGINES,  
STEAM PUMPS, ETC.

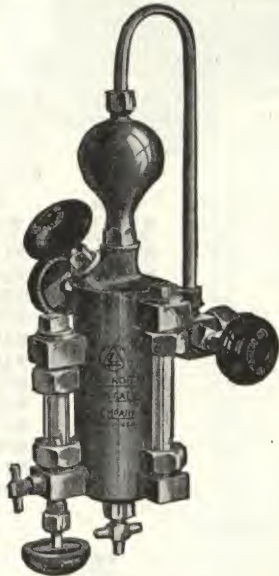


Fig. No. 1300

It is used on all kinds of reciprocating steam engines, steam pumps, etc., where a double connection lubricator cannot be installed because the arrangement of equipment does not give enough room.

It is connected to the steam pipe either above or below the throttle or into the steam chest direct. Wherever possible, however, we advise the use of a double connection lubricator in preference to the single connection type because any lubricator with two connections to the steam pipe has better condensation and consequently better feeding qualities.

The Single Connection Improved Standard is substantially the same as the Double Connection Improved Standard except for the changes in the condensing tube and support arm. Both have the same internal construction.

In the 1/2 and 1/3 pint lubricators, where an additional opening might tend to weaken the body, the filler and upper gauge arm have been combined in such a way as to make it unnecessary to eliminate the gauge on these small sizes.

Furnished only in brass finish.  
Pipe thread on support arm is 1/2 inch.

Size	Size of Glass	Net Each
1/4 Pt.	3/4x21/8	\$11.75
1/2 Pt.	3/4x21/8	\$12.50
1 Pt.	3/4x3	\$14.25
1 Qt.	3/4x3 1/4	\$18.50

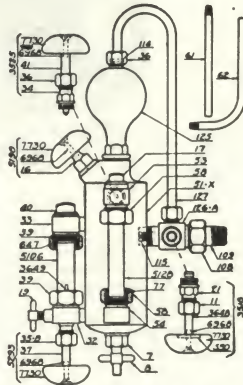


Fig. No. 1300

LIST PRICES PER PART

Part No.	NAME OF PART	1/4 Pint	1/2 Pint	1 Pint	1 Quart
1X	Body.....	\$5.00			
3	Lower Feed Arm and Nozzle.....	1.75			
4	Upper Feed Arm.....	1.00			
5	Lower Gauge Arm.....	1.00	\$1.00		
7	Drain Valve Body.....	.55	.55	\$0.55	\$0.55
8	Drain Valve Stem.....	.75	.75	.75	.75
9	Water Valve Center Piece.....	.40			
10	Feed Stem.....	.40			
11	Valve Packing Nut.....	.25	.25	.25	.25
16	Filler Plug Body.....	.75	.75	.75	.75
17	Feed and Gauge Arm Plug.....	.40	.40	.40	.40
18	Feed and Gauge Glass Packing Nut.....	.40	.40		
19	Vent Stem.....	.50	.50	.50	.50
21	Steam Valve Center Piece.....	.50	.50	.50	.50
25	Water Tube.....	.30			
26	Oil Tube.....	.30			
31X	Body.....		6.00		
32	Lower Feed Arm and Feed Nozzle.....		2.00	2.00	2.00
33	Upper Feed Arm.....		1.15	1.15	1.15
34	Water Valve Center Piece.....		.45	.45	.45
35B	Feed Valve Packing Nut.....		.25	.25	.25
36	Equalizing Tube Packing Nut.....	.25	.25	.25	.25
37	Feed Stem.....		.40	.40	.40
39	Feed Glass Packing Nut.....		.40	.40	.40
40	Feed Arm Plug.....		.50	.50	.50
41	Water Valve Stem.....		.40	.40	.40
43	Water Tube.....		.30		
44	Oil Tube.....		.30		
51X	Body.....			8.00	
53	Upper gauge Arm.....			1.15	1.15
54	Lower gauge Arm.....			1.00	1.00
58	Gauge Glass Packing Nut.....			.45	.45
61	Water Tube.....			.30	
62	Oil Tube.....			.35	
71X	Body.....				10.50
74	Water Tube.....				.35
75	Oil Tube.....				.40
76	Upper Gauge Arm (Filler).....	1.00	1.00		
77	3/4-Inch Heavy Gaskets, Dozen.....			.35	.35
108	Support Arm Tail Nut.....	.50	.50	.50	.50
109	Support Arm Tail Pipe.....	.50	.50	.50	.50
114	Equalizing Tube Ring.....	.05	.05	.05	.05
115	Support Arm Choke.....	.15	.15	.15	.15
125	Condenser.....			2.50	
126A	Support Arm Elbow.....	2.00	2.00	2.00	2.00
127	Equalizing Tube with Ring and Packing Nut.....			1.40	
128	Condenser.....				3.25
195	Equalizing Tube with Ring and Packing Nut.....	1.30	1.30		
550	Handle Follower.....	.20	.20	.20	.20
647	3/4-Inch Light Gaskets, Dozen.....	.35	.35	.35	.35
653	3/4-Inch Light Gaskets, Dozen.....	.35	.35		
3518	Steam Valve Complete.....	1.50	1.50	1.50	1.50
3520	Water Valve Complete.....	1.35			
3525	Water Valve Complete.....		1.35	1.35	1.35
3551	Condenser.....	2.25	2.25		
3555	Equalizing Tube with Ring and Packing Nut.....				1.55
3648	Steam Valve Stem.....	.40	.40	.40	.40
3649	Feed Nozzle.....	.25	.25	.25	.25
5101	5/8x2 1/4-Inch Glass.....	.25			
5106	3/4x3-Inch Feed Glass.....		.25	.25	.25
5128	5/8x4 1/4-Inch Gauge Glass.....			.25	.25
5129	5/8x3 1/4-Inch Gauge Glass.....		.25		
5190	Filler Plug Complete.....	1.00	1.00	1.00	1.00
5293	Feed Valve Complete.....		.90	.90	.90
5296	Feed Valve Complete.....	.90			
6968	No. 10-24x3/4-Inch F. H. Machine Screw.....	.03	.03	.03	.03
7730	Handle.....	.30	.30	.30	.30

PRICE, REPAIRS.....LIST NET



## MADISON-KIPP MODEL 50 FORCE FEED LUBRICATORS FOR EVERY ENGINE LUBRICATION REQUIREMENT

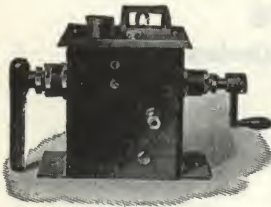


Fig. 2700. Sight Feed

**Sight Feed Lubricators.** The sight feed is not under any pressure and is always visible through the transparent hood on the cover. Black finish.

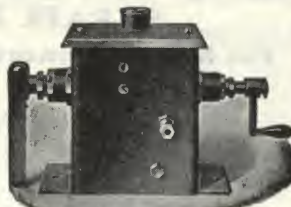


Fig. 2701. Blind Feed

**Blind Feed Lubricators.** Designed to meet any demand where a Sight Feed is not wanted. They are built on the same valveless principle as the sight feed type. Black finish.

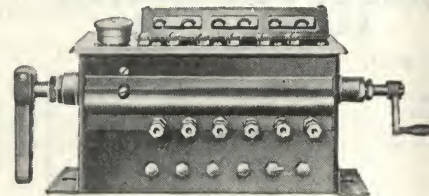


Fig. 2700M. Multiple Sight Feed

Oil is forced at any temperature and against any pressure up to 2,000 pounds. Double eccentric pumping principle provides a pumping action that is simple and free from small valve parts and springs. Gives the twist as well as the up and down motion to the pumping plunger. A fine adjustment of as little as one drop a revolution of the pump shaft may be had or a coarse feed of 12 drops is possible, each unit being adjusted separately in the sight feed model. Feed regulation is positive and is not affected by temperature changes.

In gas, oil and steam engines as well as machinery, etc., pure fresh oil fed in measured quantities at regular intervals pays large dividends in the matter of smoother operation and less maintenance. Each single feed lubricator for steam service is shipped complete with a steam check and driving device ready to attach to an engine. If the lubricator is to be attached to a grain separator, gas engine, or any machinery other than a steam engine, Specify Fittings "S" Type. Lubricators are furnished with 1/4 inch iron pipe connectors at feed outlets.

No. of Feeds	Cap'y in Pints	Shpg. Wt. Lbs.	★ NET EACH
1	4	20	\$16.00
2	5	23	\$20.00
3	5	24	\$24.00
4	6	26	\$28.00
5	7	28	.....
6	8	32	.....
7	10	34	.....
8	11	37	.....
9	12	39	.....
10	13	42	.....
11	14	45	.....
12	15	48	.....

Fig. 2701 Blind Feed	Fig. 2700M Multiple Sight Feed
★ NET EACH	★ NET EACH
\$16.00	\$19.00
\$20.00	\$24.50
\$24.00	\$30.00
\$28.00	\$35.50
.....	\$41.00
.....	\$46.50
.....	\$52.00
.....	\$57.50
.....	\$63.00
.....	\$68.50
.....	\$74.00
.....	\$79.50

### MODEL "D" PRACTICAL FORCE-FEED OIL PUMP

An absolutely reliable mechanical lubricator. Convenient and dependable. For lubricating steam engines of all makes and sizes, steam pumps, compressors, hammers, etc. Economical. Saves 30% to 50% in oil bills, as compared with hydrostatic lubricators. Always supplies the right amount of oil at the right time. Low first cost. Easy to attach, to fill and to regulate. Very simple in construction.

Pumping is done by two 5/8 inch steel plungers which are submerged in oil. No ratchet wheel, pawls, cams or valve checks in pump. Sight-feed glass is not under pressure. Nothing to freeze. Requires no draining or blowing out. Same pump can be used on either horizontal or vertical engines, and operated with pump arm and driving rod at any angle, at any stroke from one inch up. Fittings for 1/4 inch pipe. Length of foot, 6 1/2 inches. Center to center of slotted holes 5 1/2 inches.

1 Pint Size.	Black Finish.....	★ NET EACH, \$11.20
1 Quart Size.	Black Finish.....	★ NET EACH, \$12.80
2 Quart Size.	Black Finish.....	★ NET EACH, \$14.40

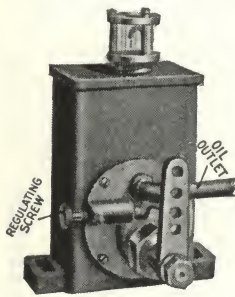
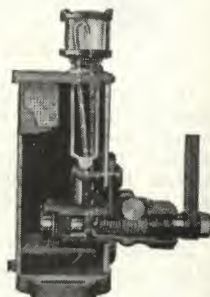


Fig. 2699



Sectional View

### HILLS-MC CANNA MECHANICAL FORCE FEED LUBRICATORS

#### DUCO OR NICKEL FINISH. RATCHET OR CLUTCH DRIVE

A mechanical means for applying oils to points requiring positive force feed lubrication. Lubricators are built for long, trouble-free service. Only materials best suited for each part are used.

One blinker sight feed and one vacuum check valve is furnished for each delivery line. A set of driving and connecting knuckles, for taking the motion from the power, are furnished with each lever driven pump. Other accessories for connecting the lubricator are supplied by the user. Standard connection is 1/2 inch. 1/4 inch connection furnished only when specified.

Reservoir capacities are 2, 6, 12, 18 and 24 pints. Feeds are from 1 to 60. Special pumps or larger pumps and motor or belt drives are quoted on request. For machines handling ammonia, steel parts are supplied when specified. Heaters for warming oil, \$0.75 Net Extra.

**SPECIFY:** Number of feeds; capacity of reservoir; finish; type of drive wanted, (Kam-Klutch or Ratchet); and information regarding the equipment lubricator is to serve.

**Ratchet Drive Pump.** For slow moving equipment, 1 to 200 strokes a minute.

**Kam-Klutch Drive Pump.** For all speeds, 1 to 750 strokes a minute. Clutch drive is totally enclosed. Suitable for inside or outside service or where there is dust and dirt. Extremely sensitive, the least movement of the driving arm puts the pump into operation. Eliminates speed reducers for fast moving equipment in most instances.

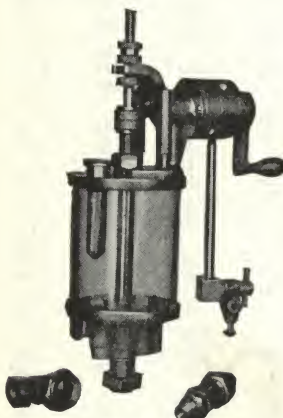


Fig. 21M. Single Feed With Glass Body

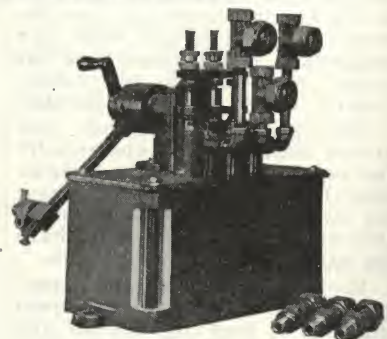


Fig. 1294. Three Feed Metal Body Type Reservoirs of 2 Pints Upward

#### ★ NET EACH—KAM-KLUTCH OR RATCHET DRIVE

Body of Pump	Number of Feeds	Capacity in Pints	★ NET Nickel Finish	★ NET Ducco Finish
Glass	1	1	\$19.50	.....
Glass	1	2	\$25.50	.....
Metal	1	2	\$19.50	\$16.00
Metal	2	2	\$24.50	\$20.25
Metal	3	2	\$30.00	\$24.75
Metal	1	6	\$22.00	\$18.00
Metal	2	6	\$27.20	\$23.00
Metal	3	6	\$32.00	\$27.00
Metal	4	6	\$46.00	\$37.50
Metal	5	6	\$52.75	\$41.25
Metal	6	6	\$59.50	\$45.00



### IMPROVED ALL BRASS HAND OIL PUMP

With Reversible Shank—For Steam Engine Cylinders

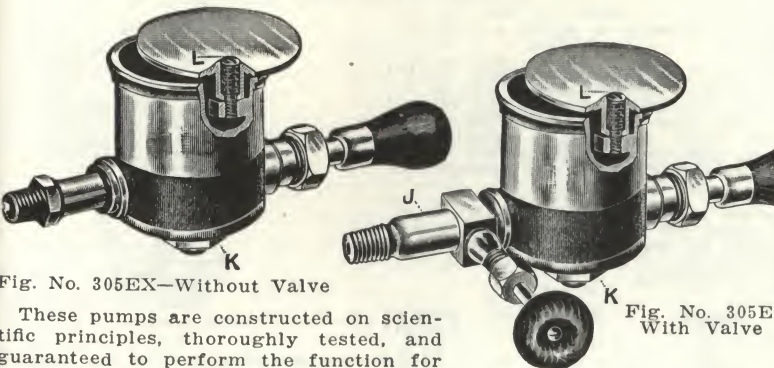


Fig. No. 305EX—Without Valve

Fig. No. 305E With Valve

These pumps are constructed on scientific principles, thoroughly tested, and guaranteed to perform the function for which they are intended.

Swing cover, held in place by a heavy spring, dispenses with burnt fingers and lost covers.

These pumps have reversible shank so they can be connected either horizontally or vertically, as may be desired. In case dirt or sediment obstructs the pump remove plug (K) to clean. All shanks are 3/8 inch.

#### ★ NET PRICES EACH

No.	Capacity, Pints	Size of Bowl	Fig. No. 305E ★ NET EACH	Fig. No. 305EX ★ NET EACH
0	3/4	2 1/4 x 2 1/4	\$4.40	\$3.95
1	1	2 3/4 x 2 3/4	\$5.60	\$4.95
2	1	3 1/2 x 3 1/2	\$7.15	\$6.45

### "COMBINATION" HAND OIL PUMP—Glass Body

This style of brass oil pump is guaranteed to work under all conditions. It is easy to attach, fill and operate. It can be made to attach either vertically or horizontally by transposing plug "K" and shank "J" which are interchangeable. This combination makes this type of oil pump adaptable for either connection, steam pipe or steam chest.

The filling is done by throwing back the cover which is made on the order of a hinge, leaving ample space for pouring in heavy oils.

The plunger is well made and durable. All parts on the pump are heavy, well constructed and are not liable to get out of order easily.

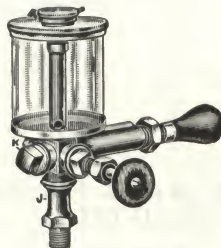


Fig. No. 301-E

#### ★ NET PRICES EACH

No. ....	3	5	6	8
Cap. oz. ....	4	8	16	32
Diam. of Glass, in. ....	2 1/4	3	3 1/2	4 1/2
Ht. of Glass, in. ....	2 3/8	3	4	5
Size of Shank, in. ....	3/8	3/8	1/2	1/2
★ NET EACH	\$6.75	\$7.75	\$9.20	\$13.45

### GLASS BODY OIL PUMP

Lever Handle

This brass pump with lever handle is simple in construction and easy to fill and operate. This is intended to be used as an auxiliary to sight feed lubricator on stationary and marine engines. Each pump is carefully tested before leaving factory and is guaranteed to be first class.

#### ★ NET PRICES EACH

Size No. ....	3	5	6	8
Cap., pts. ....	1/4	1/2	1	1 Qt.
Diam. of Glass, in. ....	2 1/4	3	3 1/2	4 1/4
Ht. of Glass, in. ....	2 3/8	3	4	5
Size of Shank, in. ....	3/8	1/2	1/2	1/2
★ NET EACH	\$6.65	\$7.15	\$9.10	\$12.45

Fig. No. 1288

### SIGHT FEED LUBRICATOR

Bull's Eye Type

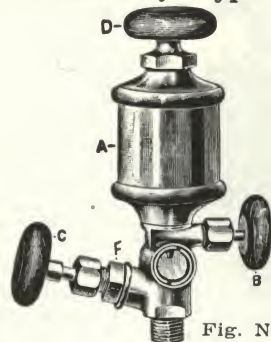


Fig. No. 1298

For Gas Engines, Air Compressors, Blowers, Etc.—Not for Steam. Brass, nicely finished and intended for use where a high grade cup is desired. It is made for any pressure that may be required.

The bulls eye sight feed is simply a glass disc packed with fiber washers. These are inexpensive and quick to renew.

\* Indicates capacity in ounces.

#### ★ NET PRICES EACH

Size, No.	Cap., Pts.	Diam. of Chamber, In.	Size of Shank, In.	Net Each
0	1	1 1/4	3/8	\$4.10
1	1 1/2	1 3/4	3/8	\$4.20
2	1 3/8	2	3/8	\$4.45
3	1 1/4	2 1/4	3/8	\$4.70
4	1 3/8	2 1/2	1/2	\$5.00
5	1 1/2	3	1/2	\$5.70
6	1	3 1/2	1/2	\$7.05
7	2	4 1/4	3/4	\$8.05

### SNAP LEVER ANGLE SIGHT FEED VALVES



For piping oiling systems for engines and machinery. Made of brass. SPECIFY size of thread, otherwise 1/4 inch pipe size will be sent.

Size Inch	List Each
1/8	\$1.40
1/4	1.40
3/8	1.50
1/2	1.60

#### DISCOUNT

Fig. 7E

35% OFF

### BRASS WICK WIPER CUP

Brass. Horizontal. For oiling engines and machinery bearings.

Fig. 5E

Size Inch	List Each
1/8	\$2.00
1/4	2.00
3/8	2.15
1/2	2.30



DISCOUNT ..... 35% OFF

### BRASS DRIP TROUGH



Fig. 6E

For oiling engines and machinery bearings. Brass.

Size Inch	Length Inch	List Each
1/8	3	\$1.00
1/4	3	1.00
3/8	5	1.50
1/2	7	2.00

DISCOUNT ..... 5% OFF



## REPUBLIC GASOLINE ENGINE LUBRICATORS



Fig. No. 314  
(Patented)

A well-made, serviceable oiler combining all the essential features of all the gasoline engine lubricators on the market. It is made of heavy brass, well constructed and substantial. The Republic has not been cheapened in any way to reduce its cost, but is made as heavy as is necessary to insure a strictly high grade lubricator.

Illustration on the left shows oiler closed. It is opened by lifting the lever shown in the cut to a vertical position, thus raising the stem in the inside of the supply tube. The pressure inside of the glass is regulated by the small tube which terminates about a quarter of an inch from the top of the brass cover, thus allowing an ingress of air and preventing a vacuum.

Just below the glass in the sight feed there is a ball check which shuts off the pressure into the lubricator at the time of explosion in the cylinder. When the pressure from the cylinder is removed, the oil feeds downward by gravity.

No.	O. D. of Glass, Inches	Ht. of Glass, Inches	Capacity, Oz.	Pipe Thread, Inches	★ NET EACH
1	1 3/4	1 3/8	1 1/2	1/4	\$1.17
2A	2	1 3/8	2 1/2	1/4	\$1.22
2	2	1 3/8	2 1/2	1/4	\$1.22
3	2 1/4	2 3/8	4	1/2	\$1.30
4	2 1/2	2 3/8	5	1/2	\$1.43
5	3	3	10	1/2	\$2.31
6	3 1/2	4	18	1/2	\$2.88

## PEASE GLASS BODY OIL CUPS

This is a standard article with sight feed and automatic attachment at the top for throwing the feed in or out of action by one movement, as shown in the cut. With the lever adjusted in a horizontal position, the feed is shut off; by raising the lever to a vertical position the feed is open. Thus, after the feed has once been adjusted at the proper point by means of the locknut, it is possible to throw it in or out with one motion.

Number	O. D. of Glass, Inches	Glass Height, Inches	Capacity	Pipe Thread, Inches	★ NET EACH
00	1	7/8	1/4 ounce	1/8	\$0.76
0	1 1/4	1 1/8	3/4 ounce	1/8	\$0.88
1	1 1/2	1 3/8	1 ounce	1/8	\$0.98
1 1/2	1 3/4	1 3/8	1 1/4 ounces	1/8	\$1.16
2	2	1 7/8	2 1/2 ounces	3/8	\$1.29
3	2 1/4	2 1/8	1 pint	3/8	\$1.35
4	2 1/2	2 1/4	1 1/2 pint	3/8	\$1.74
5	3	2 3/4	1 pint	1/2	\$2.31
6	3 1/2	4	1 pint	1/2	\$2.88

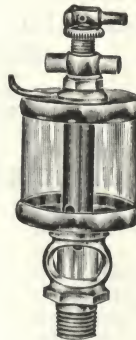


Fig. 168



## AUTOMATIC CRANK PIN AND CROSS HEAD OILER

Cast Brass

Fig. 22E

This cup is automatic and feeds only when in motion, the centrifugal force carrying the oil to the top of cup and through holes located in casing of regulating screw chamber. Made of cast brass, neat in appearance, guaranteed perfect.

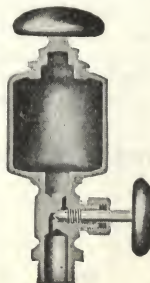
Simplicity of regulation is the feature of this device. Tightening the cup proper to prevent leaking through cork washers or removing filler cap does not disturb feed after it is once set. There is no sliding apparatus in this cup to wear and get out of order, as regulation is obtained by a needle valve screw, and can be adjusted to feed any required amount.

Number	0	1	1 1/2	2	3	4	5	6
O. D. of Glass, in.	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3	3 1/2
Ht. of Glass, in.	1 1/4	1 3/8	1 3/4	1 7/8	2 1/8	1 3/4	3	4
Cap., Oz.	1/4	1	1 1/2	2 1/2	4	5	10	Pint
Shank Pipe Thread, in.	1/8	1/4	1/4	1/4	3/8	3/8	1/2	1/2
★ NET, EACH	\$0.73	\$0.90	\$0.97	\$1.12	\$1.35	\$1.69	\$2.37	\$2.92

## PLAIN BRASS ENGINE LUBRICATOR

Fig. 1296. Plain

Number	Diameter, Inches	Capacity, Ounces	Pipe Thread, Inches	List Each
1	1 1/4	1 1/4	3/8	\$ 2.40
2	1 3/4	1 1/2	1/2	2.60
3	2	2 1/2	1/2	2.90
4	2 1/4	4	1/2	3.25
5	2 1/2	5	1/2	3.75
6	3	10	3/4	4.75
7	4	18	3/4	7.00
8	4	24	3/4	10.00
10	5	40	1	21.00
DISCOUNT				25% OFF



## PATRIOT GAS ENGINE LUBRICATOR GLASS BODY—SIGHT-FEED



Fig. 2705A

For Gas, Gasoline or Oil Engines, Blowers, Etc. Extra heavy, Cast brass. Feeds the oil directly into the cylinders of gas engines. The bent tube within the cup conveys the gas to the upper part of the body, where it exerts a pressure on the oil and assists gravity in forcing the feed. Knurled adjusting nut regulates feed. Is stopped or started by snap lever. Shanks are fitted with ball checks which prevent oil from blowing back.

### ★ NET EACH

Size No.	Glass Diam.-Ht.	Capac- ity Ounces	Pipe Thread	★ NET EACH
1 1/2	1 3/4 1 5/8	1 1/2	1/4	\$0.80
2	2 1 7/8	2 1/2	3/8	\$0.88
3	2 1/4 2 1/8	4	3/8	\$0.94
4	2 1/2 2 3/8	5	3/8	\$1.20
5	3 3	10	1/2	\$1.27
6	3 1/2 4	Pint	1/2	\$1.93

## "MULTIPLEX" GRAVITY FEED LUBRICATOR WITH TWO TO TEN FEEDS

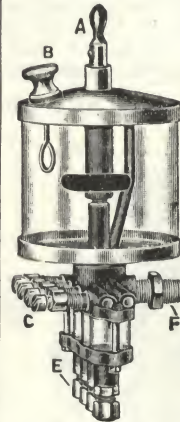


Fig. 1318

For lubricating the cylinders and bearings of motors, tractors, machinery, machine tools, etc. One lubricator takes the place of a number of oil and grease cups. All feeds can be stopped instantaneously with lever "A." Each sight feed is regulated independently with stem "C." Brass parts. Simple. Positive. Fully guaranteed. Performs perfectly. Connection "E." Brass Tubing is 1/4 inch outside diameter.

### LIST EACH COMPLETE

Size Number...	4	5	6	7
Capacity, Pints	1/2	3/4	1	2
O. D. Glass....	2 1/2	3	3 1/2	4 1/4
Height, Glass..	2 3/8	3	4	5
Two Feeds....	6.50	8.00	8.50	12.50
Three Feeds...	8.75	9.75	10.25	14.25
Four Feeds....	10.50	11.50	12.00	16.00
Five Feeds....	12.25	13.25	13.75	17.75
Six Feeds....	14.00	15.00	15.50	19.50
Seven Feeds...	15.75	16.75	17.25	21.25
Eight Feeds...	17.50	18.50	19.00	23.00
Nine Feeds....	19.25	20.25	20.75	24.75
Ten Feeds....	21.00	22.00	22.50	26.50
DISCOUNT				25% OFF



**"PAWNEE" STEEL COMPRESSION GREASE CUPS**

Standard. Drawn from rolled sheet metal. Light. Neat. Rigid. Very strong. Plain steel finish.

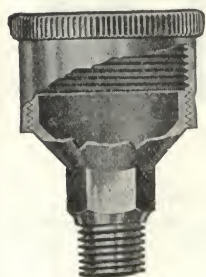
**MALE THREAD**

Fig. No. 01323

No.	Pipe Thread Inch	Inside Diam. Inch	Cap. Oz.	★NET PER 100
000	1/8	3/8	1/4	\$4.45
00	1/8	1	1/2	\$5.30
00X	1/8	1	1/2	\$5.30
0X	1/8	1 1/4	3/4	\$7.10
0	1/8	1 1/4	3/4	\$7.10
1X	1/8	1 1/2	1	\$8.70
1	1/8	1 1/2	1	\$8.70
2X	1/8	2	2	\$12.85
2	3/8	2	2	\$12.85
3X	3/8	2 1/2	3 1/2	\$19.00
3	1/2	2 1/2	3 1/2	\$19.00
4	1/2	3	5	\$28.50

**FEMALE THREAD**

It is often desirable to lubricate a bearing either where there is no room for a grease cup, or where the cup would be inaccessible if installed. Female threaded cups allow lengths of gas pipe to be connected to the cup making grease lubrication possible.

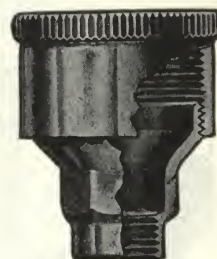


Fig. No. 3477

No.	Pipe Thread Inch	Inside Diam. Inch	Cap. Oz.	★NET PER 100
000	1/8	3/8	1/4	\$5.75
00	1/8	1	1/2	\$6.60
0X	1/8	1 1/4	3/4	\$8.40
1	1/8	1 1/2	1	\$10.00
2X	1/8	2	2	\$14.15
2	3/8	2	2	\$14.15
3X	1/2	2 1/2	3 1/2	\$20.40

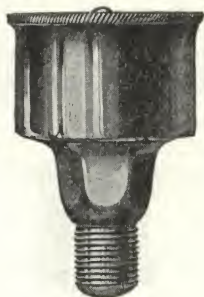
**"RELIABLE" RATCHET GREASE CUP**

Fig. 1981

Positive lock top. For use where there is excessive vibration. Steel or brass.

**★ NET PRICES**

No.	Inside Diam. Inch	Pipe Thrd. Inch	Cap. Oz.	1981 Steel, Net 100	1981B Brass Net 100
000	3/8	1/8	1/4	\$3.60	\$9.80
00	1	1/8	1/2	\$4.60	\$12.10
0	1 1/4	1/8	3/4	\$5.65	\$17.15
1	1 1/2	1/8	1	\$6.60	\$20.90
2	2	3/8	2	\$9.90	\$31.80
3	2 1/2	1/2	3 1/2	\$14.50	\$53.90

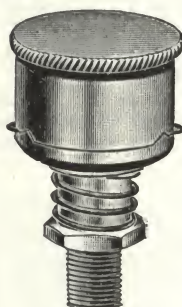
**"AJAX" STEEL RATCHET GREASE CUP**

Fig. 133

Spring and ratchet prevents cover shaking off in case of excessive vibration. Cover cannot reverse.

No.	Inside Diameter, Inches	Pipe Thread, Inches	Capacity, Ounces	★ NET 100
000	3/8	1/8	1/4	\$21.00
00	1	1/8	1/2	\$22.45
0	1 1/4	1/8	3/4	\$27.05
1	1 1/2	1/8	1	\$31.20
2	2	3/8	2	\$46.80
3	2 1/2	1/2	3 1/2	\$68.40

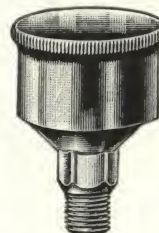
**POLAR PRESSED BRASS GREASE CUP**

Fig. No. 118

The Polar is especially adapted for outdoor use, where a steel cup would rust. A cup with accurately cut threads and one that will give general satisfaction.

**★ NET 100**

No.	Shank I. P. T. Inch	Capacity Ounces	★ NET 100
000	1/8	1/4	\$9.55
00	1/8	1/2	\$12.65
0	1/8	3/4	\$19.00
1	1/8	1	\$23.75
2	3/8	2	\$35.00
3	1/2	3 1/2	\$66.55
4	1/2	5	\$88.00

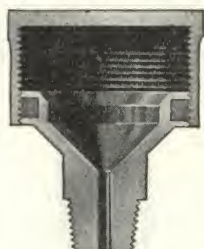
**PEERLESS BRASS GREASE CUP**

Fig. No. 161

The Peerless cup is an all brass article, full finished and made with leather washer to prevent the grease from leaking out of the cup. Used more particularly where attention must be paid to appearance.

**★ NET 100**

No.	Outside Diam. Inches	Height Overall Inches	Pipe Thread Inches	Capacity Ounces	★ NET 100
000	1 1/8	1 3/8	1/8	1/4	\$14.50
00	1 3/8	1 5/8	1/8	1/2	\$19.55
0	1 5/8	1 7/8	1/8	3/4	\$28.75
1	1 7/8	2	1/8	1	\$38.05
2	2 1/4	2 1/4	3/8	2	\$63.35
3	2 11/16	2 1/2	1/2	3 1/2	\$103.75
4	3 1/4	2 3/4	1/2	5	\$133.75

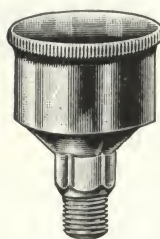
**COLUMBIA BRASS GREASE CUP**

Fig. No. 156

Columbia cups are smooth finish brass the same as the Peerless, but are without leather disc. The omission of the leather disc enables us to quote them at lower prices.

**★ NET 100**

No.	Outside Diam. Inches	Height Overall Inches	Pipe Thread Inches	Capacity Ounces	★ NET 100
00	1 1/8	1 3/8	1/8	1/4	\$16.60
0	1 3/8	1 5/8	1/8	1/2	\$23.45
1	1 5/8	2	1/8	1	\$28.55
2	2 1/4	2 1/4	3/8	2	\$44.50
3	2 11/16	2 1/2	1/2	3 1/2	\$73.10
4	3 1/4	2 3/4	1/2	5	\$94.20

**"RADIO" SCREW FEED GREASE CUP**

For feeding heavy grease and dope to bearings. Guaranteed.

Size	Inside Diam. Inches	Cap. Ounces	Pipe Thread Inches	★ NET 100
------	---------------------------	----------------	--------------------------	--------------

**STEEL—FIG. 1320S**

Size	Inside Diam. Inches	Cap. Ounces	Pipe Thread Inches	★ NET 100
00	1	1/8	1/8	\$38.15
0	1 1/4	1	1/4	\$49.50
1	1 1/2	1 1/2	3/4	\$69.00
2	2	3	1	\$82.20
3	2 1/2	6	1 1/2	\$99.00
4	3	10	1 1/2	\$117.00

**BRASS—FIG. 1320B**

Size	Inside Diam. Inches	Cap. Ounces	Pipe Thread Inches	★ NET 100
00	1	1/8	1/8	\$59.40
0	1 1/4	1	1/4	\$81.20
1	1 1/2	1 1/2	3/4	\$106.90
2	2	3	1	\$152.45
3	2 1/2	6	1 1/2	\$182.15
4	3	10	1 1/2	\$234.00



### CONSTANT-LEVEL ELBOW OILERS

The body and shank are constructed of one piece brass forging. Used on electric motors for a visible reserve oil supply, and where a large number of motors has to be oiled. This extra supply of oil automatically maintains a constant level in oil reservoir or bearings. Nickel plated, not polished.

#### HINGE TYPE



Fig. 4780

A special cover hinged to the body holds the bottle. With non-breakable or glass bottle. Not necessary to remove bottle to refill. Simply turn bottle down and fill through tube in cap.

Mfrs. No.	Thread Inches	Height Overall Inches	Length Overall Inches	Bottle Capy. Ounces	LIST EACH with Glass Bottle	LIST EACH with Non-Breakable Bottle
<b>Male Pipe Thread</b>						
HLF3251	1/8	3-1/2	2	5/8	\$0.75	\$0.85
HLF3252	1/4	3-1/2	2	5/8	\$0.75	\$0.85
HLF3253	1/4	3-1/2	2-5/8	5/8	\$0.80	\$0.90
HLF3255-3	3/8	3-7/8	2-3/4	1-1/8	\$0.95	\$1.05
HLF3255-4	3/8	4-7/8	2-7/8	2-1/2	\$1.00	\$1.15
HLF3255-5	3/8	5-3/4	2-15/16	4	\$1.05	\$1.25
HLF3256-3	1/2	4-7/16	3	1-1/8	\$1.00	\$1.10
HLF3256-4	1/2	5-7/16	3	2-1/2	\$1.05	\$1.20
HLF3256-5	1/2	6-5/16	3-1/16	4	\$1.10	\$1.30
<b>Female Pipe Thread</b>						
HLF3350	1/8	3-1/2	1-1/2	5/8	\$0.75	\$0.85
HLF3351	1/8	3-7/8	1-3/4	1-1/8	\$0.95	\$1.05
HLF3352	1/8	4-7/8	1-7/8	2-1/2	\$1.00	\$1.15
HLF3353	1/8	5-3/4	1-15/16	4	\$1.05	\$1.25
HLF3354	1/4	3-7/8	1-3/4	1-1/8	\$0.95	\$1.05
HLF3355	1/4	4-7/8	1-7/8	2-1/2	\$1.00	\$1.15
HLF3356	1/4	5-3/4	1-15/16	4	\$1.05	\$1.25
HLF3357	3/8	4-7/16	2-1/8	1-1/8	\$1.00	\$1.10
HLF3358	3/8	5-7/16	2-1/8	2-1/2	\$1.05	\$1.20
HLF3359	3/8	6-5/16	2-3/16	4	\$1.10	\$1.30

#### DISCOUNTS

1 to 9	.....LIST NET	50 to 99	....25% OFF
10 to 24	....10% OFF	100 to 249	...30% OFF
25 to 49	....15% OFF	250 Up	...On Request

#### BAYONET TYPE

Mfrs. No.	Thread Inches	Bottle Capy. Ounces	Height Overall Inches	Length Overall Inches	LIST EACH with Glass Bottle	LIST EACH with Non-Breakable Bottle
<b>Male Pipe Thread</b>						
BL3271	1/8	5/8	3-3/4	2	\$0.75	\$0.85
BL3272	1/4	5/8	3-3/4	2	\$0.75	\$0.85
BL3273	1/4	5/8	3-3/4	2-5/8	\$0.80	\$0.90
BL3275-3	3/8	1-1/8	4-1/8	2-3/4	\$0.95	\$1.05
BL3275-4	3/8	2-1/2	5-1/8	2-7/8	\$1.00	\$1.15
BL3275-5	3/8	4	6	2-15/16	\$1.05	\$1.25
BL3276-3	1/2	1-1/8	4-1/2	2-3/4	\$1.00	\$1.10
BL3276-4	1/2	2-1/2	5-1/2	2-7/8	\$1.05	\$1.20
BL3276-5	1/2	4	6-3/8	2-15/16	\$1.10	\$1.30
<b>Female Pipe Thread</b>						
BLF3370	1/8	5/8	3-3/4	1-1/2	\$0.75	\$0.85
BLF3371	1/8	1-1/8	4-1/8	1-3/4	\$0.95	\$1.05
BLF3372	1/8	2-1/2	5-1/8	1-7/8	\$1.00	\$1.15
BLF3373	1/8	4	6	1-15/16	\$1.05	\$1.25
BLF3374	1/4	1-1/8	4-1/8	1-3/4	\$0.95	\$1.05
BLF3375	1/4	2-1/2	5-1/8	1-7/8	\$1.00	\$1.15
BLF3376	1/4	4	6	2-15/16	\$1.05	\$1.25
BLF3377	3/8	1-1/8	4-1/4	2	\$1.00	\$1.10
BLF3378	3/8	8	7-5/8	2-13/32	\$1.60	\$2.40
BLF3379	3/8	16	9-1/16	2-11/16	\$1.85	.....
BLF3380	3/8	2-1/2	5-1/4	2-1/8	\$1.05	\$1.20
BLF3381	3/8	4	6-1/8	2-3/16	\$1.10	\$1.30

#### DISCOUNTS

1 to 9	.....LIST NET	50 to 99	....25% OFF
10 to 24	....10% OFF	100 to 249	...30% OFF
25 to 49	....15% OFF	250 Up	...On Request

### STEEL WICK FEED OIL CUPS

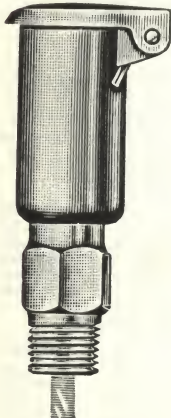


Fig. 4778

The tube and wick inside the bowl prevent dirt and grit reaching the bearing. The wick feeds the oil slowly, constantly and positively.

Mfrs. No.	Pipe Thread	Body Diam.	Body Height	Height Overall	Finish	LIST
WC2101	5/16-32	1/2	7/8	1-5/8	N. Pl.	\$13.75
WC2102	1/8	5/8	1-1/8	1-15/16	N. Pl.	\$14.85
WC2103	1/8	3/4	1-1/4	2-1/8	N. Pl.	\$16.40
WC2104	1/4	1	1-3/8	2-5/16	N. Pl.	\$20.35
WC2105	1/4	1-1/4	1-1/2	2-7/16	N. Pl.	\$23.65
WC2106	3/8	1-5/8	2	3	N. Pl.	\$27.50
WC2107	1/4	2-1/4	2	2-15/16	N. Pl.	\$43.45
WC2108	1/4	2-3/4	2-1/4	3-3/16	Black	\$57.00
WC2109	3/8	2-3/4	2-1/4	3-1/4	Black	\$57.00
WC2110	1/2	2-3/4	2-1/4	3-1/4	Black	\$72.00
WC2111	1/4	4	2-1/2	3-7/16	Black	\$72.00
WC2112	3/8	4	2-1/2	3-1/2	Black	\$72.00
WC2113	1/2	4	2-1/2	3-9/16	Black	\$72.00
WC2114	1/4	1-5/8	2	2-15/16	N. Pl.	\$27.50
WC2115	1/8	1	1-3/8	2-3/16	N. Pl.	\$20.35
WC2116	1/8	1-1/4	1-1/2	2-5/16	N. Pl.	\$23.65
WC2117	3/8	2-1/4	2	3	N. Pl.	\$44.00

#### DISCOUNTS

1 to 99	.....LIST NET	300 to 499	...10% OFF
100 to 299	....5% OFF	500 Up	...On Request

### DIXIE AUTOMATIC STEEL GREASE CUP

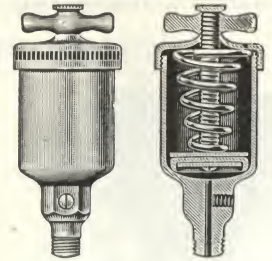


Fig. No. 162-B

Made of high grade pressed steel. Has regulating screw and cup leather.

Size	Capacity Ounces	Pipe Thread	★ NET
00	1/2	1/8	\$65.15
0	1	1/4	\$68.40
1	1 1/2	3/4	\$81.20
2	3	3/8	\$104.20
3	6	1/2	\$127.10
4	10	1/2	\$148.50

### ARCTIC AUTOMATIC BRASS GREASE CUP



Fig. 2119

For stationary or movable bearings. It forces grease onto the bearings. Screw regulates flow of grease. Cup leather in plunger makes perfect fit.

No.	Inside Diam., Inch	Pipe Thread, Inch	Cap., Oz.	★ NET
00	1	1/8	1/8	\$72.25
0	1 1/4	1/4	1	\$83.10
1	1 1/2	3/4	1 1/2	\$114.50
2	2	3/8	3	\$159.35
3	2 1/2	1/2	6	\$201.60
4	3	1/2	10	\$264.00

### NICKEL PLATED OIL HOLE COVERS



Fig. 1953

Fig. 1953. STYLE N. Can be used at any angle.

Number	Stock Thread	Cap Diameter	★ NET
1	1/4-32V	3/8	\$ 6.70
2	5/16-32V	7/16	\$ 7.35
3	3/8-24V	1/2	\$ 8.00
4	1/2-1PT	9/16	\$10.30

**ALWAYS USE  
ALLEN'S  
RED BOOK  
TO SAVE YOUR TIME**



### THREADED OIL HOLE COVERS

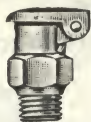


Fig. 4803

The body is one piece and turned from solid bar stock. Generous oil passage. Threads are die cut and accurate. Spring hinge lid. Nickel plated, not polished.

Mfrs. No.	Thread	Body Diam.	Height Overall	LIST 100
Y101	1/4-32	7/32	9/16	\$ 6.30
Y102	10-32	9/32	9/16	\$ 6.30
Y103	1/4-32	9/32	9/16	\$ 6.30
Y104	5/16-32	9/32	9/16	\$ 6.30
Y105	1/4-32	11/32	3/4	\$ 7.10
Y106	3/8-24	11/32	3/4	\$ 7.10
Y107	5/16-32	13/32	13/16	\$ 7.20
Y109	7/16-24	13/32	7/8	\$ 7.20
Y111	1/2-24	15/32	7/8	\$ 7.20

#### MALE PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Overall	LIST 100
Y108	1/8	13/32	13/16	\$ 7.20
Y110	1/8	15/32	7/8	\$ 7.20
Y112	1/8	19/32	1-1/8	\$10.20
Y113	1/4	19/32	1-1/8	\$10.20
Y114	3/8	19/32	1-1/4	\$13.50
Y121	1/2	3/4	1-3/8	\$16.50
Y122	3/4	1-1/4	1-3/8	\$24.00

#### FEMALE PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Overall	LIST 100
Y118	1/8	19/32	1-1/8	\$10.45
Y119	1/4	19/32	1-1/8	\$10.45

### SHOULDER DRIVE OIL HOLE COVERS



Fig. 4804

Made to drive into a drilled hole. The square shoulder permits driving into die cast bearings without danger of cracking the metal. Nickel plated, not polished.

Mfrs. No.	Drive Hole Size	Body Diam.	Height Overall	LIST 100
Y301	3/16	1/4	15/32	\$ 4.50
Y302	1/4	5/16	15/32	\$ 4.80
Y303	5/16	3/8	9/16	\$ 5.10
Y304	3/8	1/2	21/32	\$ 5.40
Y305	1/2	5/8	25/32	\$ 6.50
Y306	5/8	3/4	1	\$ 7.00
Y307	3/4	1	1-1/8	\$ 7.50
Y308	7/8	1	1-1/16	\$ 7.50
Y308-B	1	1-1/4	1-5/32	\$11.00
Y309	1-1/4	1-5/8	1-1/2	\$11.50
Y311	1-1/2	1-5/8	1-1/4	\$11.50

### BEADED DRIVE OIL HOLE COVERS

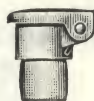


Fig. 4805

The most popular type drive oil hole cover. Neat appearing. Turned from solid bar stock with exact uniform shank and a generous oil passage. Spring hinge lid. Nickel plated, not polished.

Mfrs. No.	Drive Hole Size	Body Diam.	Height Overall	LIST 100
G501	1/4	1/4	13/32	\$3.75
G502	5/16	5/16	1/2	\$4.25
G503	3/8	3/8	17/32	\$4.75
G504	7/16	7/16	5/8	\$6.00
G505	1/2	1/2	5/8	\$6.25

### BALL VALVE DRIVE OIL HOLE COVERS



Fig. 4806

Used where a flush type oiler is desirable. The spout of an oil can is easily inserted into these oilers. They are self-closing. Nickel plated, not polished.

Mfrs. No.	Drive Hole Size	Body Diam.	Height Overall	LIST 100
GB520	3/16	3/16	9/32	\$ 3.00
GB521	1/4	1/4	5/16	\$ 3.25
GB522	5/16	5/16	11/32	\$ 3.75
GB523	3/8	3/8	7/16	\$ 4.25
GB524	7/16	7/16	17/32	\$ 5.00
GB525	1/2	1/2	17/32	\$ 5.75
GB526	9/16	9/16	5/8	\$ 7.50
GB527	5/8	5/8	5/8	\$10.00

### BRASS ELBOW OIL CUPS

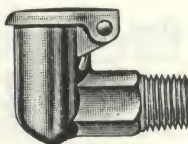


Fig. 4807

Made of yellow brass. High polish nickel plate finish. Hinge lid, easily opened.

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
KV613	5/16-32	13/32	1 1/4	1 1/2	\$11.50
KV614	5/16-32	1 1/2	1 1/4	1 1/2	\$12.50

#### MALE PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
KV615	1/8	1 1/4	1 1/4	1 1/2	\$16.60
KV616	1/4	1 1/2	1 1/4	1 1/2	\$20.35
KV618	1/4	1 1/2	1 1/4	1 1/2	\$19.90
KV620	1/2	1 1/2	1 1/4	1 1/2	\$18.95
KV621	1/2	1 1/4	1 1/4	1 1/2	\$26.65
KV622	5/8	1 1/4	1 1/4	1 1/2	\$30.25
KV623	1 1/8	1 1/4	1 1/4	1 1/2	\$22.25
KV624	1 1/8	1 1/4	1 1/4	1 1/2	\$22.25
KV625	1 1/8	1 1/4	1 1/4	1 1/2	\$23.65
KV626	1 1/8	1 1/4	1 1/4	1 1/2	\$15.50

#### FEMALE PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
KV609	1/8	1 1/4	1 1/4	1 1/2	\$17.05

### SMALL BRASS ELBOW OIL CUPS

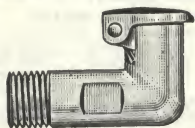


Fig. 4808

The body is formed from solid brass and carefully drilled to cause a free and generous oil passage. Threads are die cut and accurate. Nickel plated, not polished.

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
L1201	10-32	1/4	9/16	3/4	\$ 8.00
L1202	1/4-32	1/4	5/8	3/4	\$ 8.00
L1204	5/16-32	1/4	5/8	15/16	\$ 9.50
L1205	5/16-32	1/4	5/8	3/4	\$10.00
L1206	3/8-24	1/2	3/4	1	\$10.00

#### IRON PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
L1207	1/8	1 1/4	1 1/4	1 1/2	\$10.00
L1208	1/4	1 1/2	1 1/4	1 1/2	\$13.50
L1209	1/2	1 1/2	1 1/4	1 1/2	\$14.50
L1221	1/2	1 1/2	1 1/4	1 1/2	\$15.50
L1211	1/4	1 1/2	1 1/4	1 1/2	\$12.50

#### DRIVE TYPE

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
L1219	1/4	1 1/4	1 1/4	1 1/2	\$10.00
L1220	1/4	1 1/4	1 1/4	1 1/2	\$11.00
L1233	1/8	1 1/4	1 1/4	1 1/2	\$10.00

1 to 99	LIST NET
100 to 299	5% OFF
300 to 499	10% OFF

### DISCOUNT

### STEEL BRAZED OIL CUPS

Substantially made, the body being drawn from cold rolled strip steel and the shank turned from solid hexagon bar stock. The shank is securely riveted oil tight to the body and to assure a leak proof joint the connection is brazed. Polished nickel plate finish.

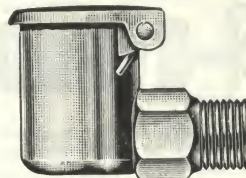


Fig. 4809

#### ELBOW TYPE

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
Y800	5/16-32	5/8	3/4	1 1/4	\$10.45

#### MALE PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
Y801	1/8	1 1/4	1 1/4	1 1/2	\$10.45
Y802	1/4	1 1/2	1 1/4	1 1/2	\$11.75
Y803	1/2	1 1/2	1 1/4	1 1/2	\$14.85
Y804	1/2	1 1/2	1 1/4	1 1/2	\$14.85
Y806	1 1/8	1 1/2	1 1/4	1 1/2	\$20.25
Y807	1 1/8	1 1/2	1 1/4	1 1/2	\$24.75
Y808	1 1/8	1 1/2	1 1/4	1 1/2	\$44.00

#### FEMALE PIPE THREAD

Mfrs. No.	Thread	Body Diam.	Height Inch	Length Inch	LIST 100
Y809	1/8	1 1/4	1 1/4	1 1/2	\$11.00
Y810	1/4	1 1/2	1 1/4	1 1/2	\$12.65
Y805	1/2	1 1/2	1 1/4	1 1/2	\$14.85

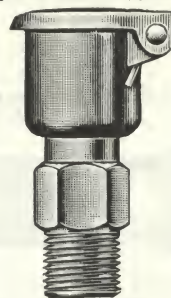


Fig. 4810

#### VERTICAL TYPE

Mfrs. No.	Pipe Thread	Body Diam.	Height Inch	Length Inch	LIST 100
C1001	1/8	1 1/4	1 1/4	1 1/2	\$10.45
C1002	1/4	1 1/2	1 1/4	1 1/2	\$11.55
C1003	1/2	1 1/2	1 1/4	1 1/2	\$13.75
C1004	1/2	1 1/2	1 1/4	1 1/2	\$13.75
C1005	1 1/8	1 1/2	1 1/4	1 1/2	\$18.70
C1006	1 1/8	1 1/2	1 1/4	1 1/2	\$23.65
C1007	1 1/8	1 1/2	1 1/4	1 1/2	\$38.50
C1008	1 1/8	1 1/2	1 1/4	1 1/2	\$23.65
C1009	5/16-32	1 1/4	1 1/4	1 1/2	\$11.00
C1010	5/16-32	1 1/4	1 1/4	1 1/2	\$12.65
C1011	1/2	1 1/4	1 1/4	1 1/2	\$20.25
C1012	1/2	1 1/4	1 1/4	1 1/2	\$20.25
C1013	1/2	1 1/4	1 1/4	1 1/2	\$23.65

### BRASS ELBOW OIL GAUGES

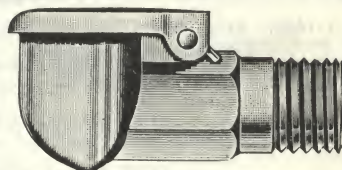


Fig. 4811

A brass low body oil gauge or filter plug used on motors and oil reservoirs, one piece body and shank. Die cut threads. Spring hinge lid. Nickel plate finish.

Mfrs. No.	Pipe Thread	Body Diam.	Length Inch	LIST 100
GE3201	1/8	5/8	1-1/2	\$12.80
GE3202	1/4	3/4	1-3/4	\$18.80
GE3203	3/8	1	2-1/8	\$22.25
GE3204	3/8	1	2-3/8	\$28.05
GE3205	1/2	1-1/4	2-5/8	\$46.75

500 to 749	20% OFF
750 to 999	25% OFF
1000 or More	On Request

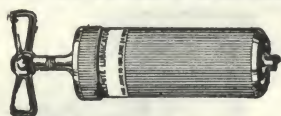


# ALEMITE "PIN TYPE" SYSTEM

## For Automotive and Industrial Lubrication

### Hand Compressors

To Be Used with Flexible Hose  
1/8 Pipe Thread Connection.

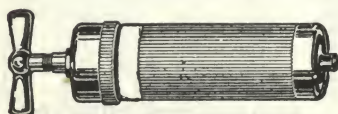


C-600. Regular Compressor. Size overall is 2 1/2 by 8 inches. Approximately capacity is 1/2 pound.

LIST EACH, \$1.80



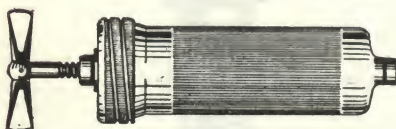
A-110. Piston Cup Leather  
EACH, \$0.15



C-700. Medium Compressor. Size overall is 3 by 8 inches. Capacity is 3/4 pound.



A-710. Piston Cup Leather  
EACH, \$0.20



1080. Large Compressor. Length, 10 1/2 inches. Diameter cylinder is 2 1/2 inches. Capacity is 14 ounces.

LIST EACH, \$3.70

1079. With Crank Handle.

LIST EACH, \$4.70

A-510. Piston Cup Leather  
EACH, \$0.25

DISCOUNT ..... 40% OFF

### Standard Hose

For hand compressors. For equipment with Alemite fittings. Double braided finely woven wire. Very strong and light.



A-1039. 14 inch. Special Coupling. 1/2 inch connection.

LIST EACH, \$1.45

HP-129. 8-1/2 inch. 1/8 inch pipe thread end connection.

LIST EACH, \$1.20

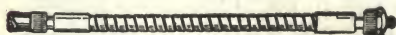
A-904. 24 inch. 1/8 inch pipe thread end connection.

LIST EACH, \$1.90

DISCOUNT ..... 40% OFF

### Heavy Duty Hose

For any hand compressor with 3/4 inch connection. For equipment with Alemite fittings. Triple braided finely woven wire inside of a conduit of heavy flexible metal.



A-908-A 15 inch ..... EACH, \$3.50

DISCOUNT ..... 40% OFF

### Repair Parts



P-42058



G-42059



H-15-114



H-114

EACH

P-42058 Coupling Body ..... \$0.25

G-42059 Coupling Assembly ..... \$0.30

H-15-114 Nipple Assembly, 1/2 inch ..... \$0.30

H-114 Nipple Assembly, 1/4 inch ..... \$0.30



A-912



P-43809



H-151

A-912. Coupling Nipple. For connecting two or more lengths of hose.

EACH, \$0.12

P-43809 Hose Nut .... EACH, \$0.10

H-151 Swivel Stud .. EACH, \$0.20



P-43851



P-46118



A-617



A-618

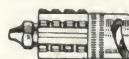
EACH

P-43851 Steel Washer ..... \$0.02

P-46118 Coupling Cup Leather ..... \$0.04

A-617 Coupling Spring ..... \$0.03

A-618 Nipple Spring ..... \$0.03



5329. Push Type to Pin Type Adapter. Pin type fittings can be lubricated by a push type gun.

EACH, \$0.75

A-942. Spiral Valve Coupling Adapter. When the fitting is placed at an angle that does not permit access with the hose or compressor it can be reached by use of this adapter. Swivel fitting can be turned to the direction necessary.

LIST EACH, \$0.75



PRICE ..... NET

### Coupling Kits

Couplings can easily be repaired. Leakage of lubricant from sides of coupling can be avoided by use of new leathers.



REPAIR KIT 5035. 1 RT-50 Repair Tool (.60); 6 A-617 Springs (.03 Each); 10 P-43851 Steel Washers (.02 Each); 30 P-46118 Cup Leathers (.04 Each) ..... LIST EACH KIT, \$1.80

PARTS KIT 5541. 12 A-617 Springs (.03 Each); 20 P-43851 Steel Washers (.02 Each); 60 P-46118 Cup Leathers (.04 Each) ..... LIST EACH KIT, \$2.00

PARTS KIT 5542. 6 A-617 Springs (.03 Each); 10 P-43851 Steel Washers (.02 Each); 30 P-46118 Cup Leathers (.04 Each) ..... LIST EACH KIT, \$1.20

DISCOUNT ..... 40% OFF

### Alemite Fittings



A-336



A-358

A-336. 1/8 inch Pipe Thread Straight Fitting. LIST EACH, \$0.10

A-358. 1/4 inch Pipe Thread Straight Fitting 1-3/32 inch long. LIST EACH, \$0.10

A-382. 1/8 inch FEMALE Pipe Thread Straight Fitting 1-1/32 inch long. LIST EACH, \$0.10

A-358. 1/8 inch Pipe Thread 90° Elbow Fitting. LIST EACH, \$0.10

A-371. 1/4 inch Pipe Thread 90° angle fitting. 1-13/64 long body. LIST EACH, \$0.10



A-684



A-850



A-501

A-684. 1/2 inch Pipe Thread 45° Elbow Fitting. LIST EACH, \$0.10

A-850. Water Pump Straight Fitting. 1/2 inch Pipe Thread. LIST EACH, \$0.20

A-501 Dust Cap ..... EACH, \$0.05

DISCOUNT ..... 40% OFF

### Alemite Gat Gun



Gat Gun. Used in the lubrication of tight or "frozen" bearings. Capable of developing a pressure of 10,000 pounds to the square inch with thrust rod follower. Lubricant capacity, 15 ounces.

1054 With double ball jointed hose ..... EACH, \$17.50

5085 With snake hose EACH, \$17.50

1056 Less Hose, 1/2 inch connection. LIST EACH, \$11.50

1065 Less Hose, 1/4 inch connection. LIST EACH, \$11.50

### HOSE

Double Ball Jointed Hose. For use with gat gun or other hand guns.

5584. 1/8 P.T. ... LIST EACH, \$6.00

5570. 1/4 P.T. ... LIST EACH, \$6.00

DISCOUNT ..... 40% OFF

### ALEMITE LUBRICANT



A pure solidified oil. For all industrial service. Contains no acids, grit, or harmful substances. Will lubricate efficiently in temperatures from 30° below to 200° above. Will not cake or gum.

★ NET

L-939 1 Pound Can ..... \$0.25

L-900 5 Pound Can ..... \$1.06

L-929 10 Pound Can ..... \$1.80

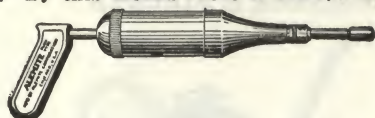


# ALEMITE "PUSH TYPE" SYSTEM

## For Automotive and Industrial Lubrication

### Push Type Automatic Compressors

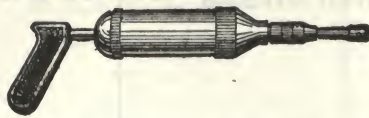
These pressure feed Compressors have a primary chamber with a piston that forces the semi-solid lubricant or oil into the secondary chamber where the pressure is developed. By this means there is always lubricant in the nozzle.



**5556Z.** Capacity 5 ounces. Filled by removing the handle and head assembly.

**LIST EACH, \$2.30**

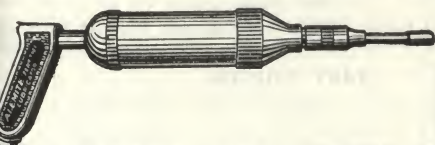
- 72 Nozzle Ball .....EACH, \$0.05
- 319 Nozzle Spring .....EACH, \$0.05
- 44033 Piston Main Spring ..EACH, \$0.15



**5585Z.** Capacity 9 ounces. Filled by removing the handle and head assembly.

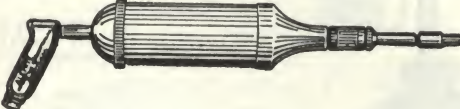
**LIST EACH, \$4.00**

- Z-72 Nozzle Ball .....EACH, \$0.05
- Z-319 Nozzle Spring .....EACH, \$0.05
- Z-405 Main Spring .....EACH, \$0.15



**5586. Hydraulic Gun.** Operated by pushing the gun coupling on the fitting and working the gun back and forth. The gun is removed from the fitting by a side motion, this simple operation insures rapid work. A positive seal on the fitting is made by the Hydraulic Coupling. The higher the pressure the tighter the jaws of the coupling hold onto the fitting. Operated by one hand, 9 ounce capacity. Inside diameter, 1-29/32 inch. 16 inches overall.

**LIST EACH, \$6.30**



**5256Z.** Filled through the handle without removing the head from the cylinder with No. 1010 Push Type Filler Tank. For threshers, combines, tractors and large industrial machines. Sturdy construction. Capacity 1 1/4 pounds.

**LIST EACH, \$10.00**

**5079. With Extension Nozzle...\$10.75**

**1010 Filler Tank .....\$16.00**

**P-42440 Main Spring .....\$0.25**

### Push Type Filler Tank



**1010.** A portable lubricant container for quickly filling Push Type compressors Z-3-G and 1029. Capacity, 20 pounds of lubricant. Easily carried. Fills a compressor in one or two strokes, remove the plug from the compressor handle and push the handle over the rigid nozzle of the filler tank. With bracket for hanging compressor.

**EACH, \$16.00**

### Hydraulic Type Fittings

- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |
| 1610                                    | 1627                                    | 1662                                    | 1613  | 1611                                    | 1612                                    | 1629  |
| 1/8 inch pipe thread. Straight Fitting. | 1/4 inch pipe thread. Straight Fitting. | 1/2 inch pipe thread. Straight Fitting. | 1/2 inch pipe thread. Water Pump Fitting with Cap | 1/2 inch pipe thread. 90° Elbow Fitting | 1/2 inch pipe thread. 30° Elbow Fitting | 1/2 inch pipe thread. 67 1/2° Elbow Fitting |
| .....\$0.06                             | .....\$0.14                             | .....\$0.14                             | .....\$0.11                                       | .....\$0.11                             | .....\$0.10                             | .....\$0.18                                 |

### Push Type Drive Fittings

For converting oil holes into the Push Type Lubricating System by driving an Adapter into the oil hole and then driving in the adapter either an elbow fitting or straight fitting. Adapter drive sizes: 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1, and 1 1/4 inch.

- |  |               |                             |                          |                    |
|--|---------------|-----------------------------|--------------------------|--------------------|
|  |               |                             |                          |                    |
| 1405   | 1406          | 5027                        | 5028                     | 5026               |
| Straight Fitting                                     | Elbow Fitting | Straight Fitting Drive Tool | Elbow Fitting Drive Tool | Adapter Drive Tool |
| .....\$0.07  | .....\$0.08   | .....EACH, \$0.50           | .....EACH, \$0.50        | .....EACH, \$0.50  |
| 814 Ring Gauge. For getting adapter size .....\$1.00 |               |                             |                          |                    |

## ALEMITE "BUTTON HEAD" SYSTEM

### For Heavy Industrial Lubrication

#### Compressors

Use any Alemite Pin-Type Compressor, see preceding page, but use Button Head Coupling, or Hose with Button Head Coupling and pump machinery with Button Head fittings.

#### Couplings



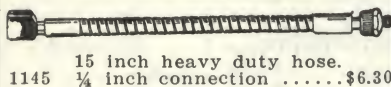
Fits any Alemite Hose. Pull-On type.

- o. With Washer List Each
- 42930 Metal Sealing .....\$2.75
- 42930 Leather .....\$2.75

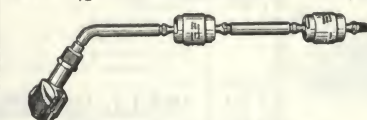


- 41493 Plunger Assembly ...\$0.40

#### Button Head Hose



**1145** 15 inch heavy duty hose. 1/4 inch connection .....\$6.30



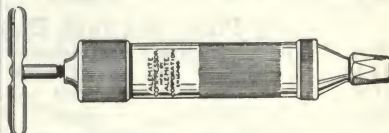
**5571** Double ball jointed hose. 1/2 inch connection .....\$8.00  
**5572** 1/4 inch connection .....\$8.00

#### Fittings

- |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|
|                       |                       |                       |
| A-1184                | A-1186                | A-1188                |
| 1/4 inch Pipe Thread. | 1/2 inch Pipe Thread. | 3/4 inch Pipe Thread. |
| .....\$0.12           | .....\$0.14           | .....\$0.18           |

## "ALEMITE-DOT" Lubricating System

Compressors have a rigid nozzle and attach directly to the fittings.



- | No.  | Capacity Ounces | Compressor | LIST EACH |
|------|-----------------|------------|-----------|
| 5054 | 8               | Large      | \$5.85    |
| 5057 | 12              | Heavy Duty | \$8.00    |

- |             |             |             |
|-------------|-------------|-------------|
|             |             |             |
| 1461        | 1465        | 1463        |
| Straight    | Straight    | 90° Elbow   |
| .....\$0.12 | .....\$0.25 | .....\$0.24 |

**PRICES, Except 1010 which is List Net. ....40% OFF**



## WALL "EVERLASTING" BRAZED STEEL WARE

**Very Durable and Strong! Gives Service for Many Years**

### WALL "EVERLASTING" BRAZED STEEL BENCH OILERS

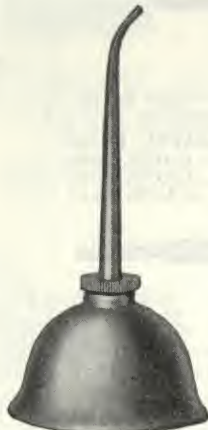


Fig. 2470

The best oil can made. Will withstand more hard usage and last longer than any Oil Can on the market. Heavy drawn steel bodies with clock steel bottoms, securely brazed on the outside with hard brass spelter. Cut thread brass collars riveted to bodies. The steel spouts are welded and riveted into solid brass machined bushings. Can has a large opening at the top, making it easy to fill.

Spouts, 6, 9 or 12 inches long are furnished bent unless ordered straight.

#### LIST DOZEN

1/6 Pint. 2 3/4 Inch Diameter			
Mfrs.	Spout, Inches	Spout	List Dozen
100	3	Straight	\$4.00
104	4	Straight	\$4.50

1/3 Pint. 3 3/8 Inch Diameter			
Mfrs.	Spout, Inches	Spout	List Dozen
204	4	Straight	\$5.00
206	6	Bent	\$5.50
209	9	Bent	\$6.00

1/2 Pint. 3 3/4 Inch Diameter			
Mfrs.	Spout, Inches	Spout	List Dozen
304	4	Straight	\$6.00
306	6	Bent	\$6.50
309	9	Bent	\$7.00

3/4 Pint. 4 1/8 Inch Diameter			
Mfrs.	Spout, Inches	Spout	List Dozen
404	4	Straight	\$7.00
406	6	Bent	\$7.50
409	9	Bent	\$8.00

1 Pint. 4 5/8 Inch Diameter			
Mfrs.	Spout, Inches	Spout	List Dozen
504	4	Straight	\$8.00
506	6	Bent	\$8.50
509	9	Bent	\$9.00
512	12	Bent	\$9.00

#### Extra Nozzles for Everlasting Oilers

Nozzle, In.	List Per Doz.
3 For No. 100 oilers.....	\$2.50
4 For No. 104 oilers.....	2.75
4 { Interchangeable for all other sizes. }	3.00
6 { }	3.25
9 { }	4.25
12 { }	5.75

Six-inch and upwards furnished bent, unless otherwise ordered.

**DISCOUNT** { 1 to 11.....  
12 or over.....

### WALL "EVERLASTING" BRAZED STEEL ENGINEER'S FILLERS



Fig. 2472

Drawn steel body. With long spout. Brazed bottom and spout. Threaded filler cap. Finished in black enamel.

#### LIST PRICES

Number.....	515	520
Capacity, pints.....	1	4
Diameter, inches.....	4 1/2	6 1/2
Height, inches.....	3 1/2	6 1/2
Singly, list each.....	\$ 1.20	\$ 1.80
1/4 doz. or more, list, per dozen.....	12.00	18.00

### WALL "SUPERIOR" WELDED STEEL TALLOW POTS



Fig. 2473

Welded steel body with hexagon screw top. Welded spout. Rounded handle. Black finish.

#### LIST PRICES

Number.....	40	41
Capacity.....	1/2 Gal.	1 Gal.
Singly, list each.....	\$ 1.50	\$ 2.80
1/4 doz. or more, list, per doz.....	15.00	28.00

### WALL "EVERLASTING" BRAZED STEEL PYRAMID TORCHES

Made from heavy steel. Strong and durable. No leaks. For foundries, machine shops, rolling mills, blast furnaces, mines, etc. Complete with hook and chain.



Fig. 1324

#### LIST PRICES

Number.....	81	82	83	84	85
Capacity.....	1 pt.	1 qt.	1 qt.	2 qt.	2 qt.
No. of burners.....	1	1	2	1	2
Singly, list each.....	\$0.90	\$ 1.00	\$ 1.20	\$ 1.20	\$ 1.40
List, per dozen.....	9.00	10.00	12.00	12.00	14.00
1/4 dozen or more take dozen list.					

### WALL "EVERLASTING" BRAZED STEEL ENGINEER'S TORCHES



Fig. 2471

Mfrs. 110. Brazed side, bottom and burner. Easy grip handle. Made of steel. Cannot leak. 1 Pint capacity 4 1/4 inches in diameter. 8 1/2 inches high overall.

Pint Size.....List Each, \$0.90  
1/4 Dozen or More...List Dozen, \$9.00

**20% OFF**  
**25% OFF**



## EVERBRITE FINISH STEEL OILERS



Fig. No. 1308

Made from 20 gauge cold rolled steel with high grade clock spring steel bottoms.  
All have 1½ in. filler openings.  
9 in. spouts are bent.

### LIST PRICES PER DOZEN

Style of Spout	Cap., Pts.	Diam., In.	Length of Spout, In.	List per Doz.
Straight	¼	2½	3	\$4.50
Straight	½	3½	3	5.50
Straight	¾	3½	5	6.00
Bent	¾	3½	9	6.50
Straight	¾	3¾	3	7.50
Straight	¾	3¾	5	8.00
Bent	¾	3¾	9	8.50
Straight	1	4¼	3	9.25
Straight	1	4¼	5	9.75
Bent	1	4¼	9	10.50

### DISCOUNT

to 11.....55% OFF  
or More.....65% OFF

## SELF-CLOSING STEEL OILER

1½ Quarts Capacity  
20 Inch Spout



Fig. 2157

Made of cold rolled steel and welded throughout. No solder whatever is used.

The flow of oil is controlled by a simple and unbreakable mechanism which operates a valve in the top of the spout. The valve is opened when the thumb lever is depressed and closes when it is released.

Capacity 1½ quarts. Length of spout is 20 inches.

★ NET EACH,  
\$1.75

★ NET DOZEN,  
\$17.50

## COPPERIZED STEEL RAIL- ROAD OILERS



Fig. No. 1656

Drawn seamless in two parts from 20 gauge cold rolled steel, heavily electro copper plated inside and out. Union spout connection turned from solid bar brass, with machine cut threads. \* No. 111 has extra large spout.

### LIST PRICES PER DOZEN

No.	Cap., Pts.	Diam., In.	Ht., In.	Spout, In.	List per Doz.
10	1	3¼	5½	12	\$14.00
11	2	4½	5¾	18	18.00
111*	4	5	7¾	12	20.00

DISCOUNT .....45% OFF

## FLEXIBLE SPOUT COPPERIZED STEEL OILER



Fig. No. 2478

The body of this oiler is made of cold drawn steel with a copperized finish. The flexible spout, 7 in. long, enables the user to distribute oil in "hard to reach" places.

### ★ NET PRICES PER DOZEN

No.	Cap., Pts.	Diam., In.	Net Doz.
3F	¼	3½	\$3.00
4F	¼	3¾	\$3.36
5F	¾	4¼	\$3.75

## COPPER PLATED STEEL ENGINEERS' SETS



Fig. 2476-5



Fig. 2476-6

### List Price Includes Tray LIST PRICES PER SET

Fig. 2476-5. 5 Pcs., round tray.....List Set, \$5.00  
Fig. 2476-6. 6 Pcs., round tray.....List Set, 7.00  
DISCOUNT .....45% OFF

## COPPERIZED FILLERS AND TALLOW POTS

Fig. No. 2474  
Filler



Fig. No. 2475  
Tallow Pot



### LIST PRICES PER DOZEN

No.	Cap., Pts.	Diam., In.	Ht., In.	List per Doz.
19	Filler.....	1	4½	\$14.00
19A	Filler.....	1½	4¾	17.00
210	Filler.....	2	5	20.00
211	Filler.....	4	6	24.00
212	Tallow Pot....	2	5	21.00
213	Tallow Pot....	4	6	25.00

25% OFF

## COPPERIZED AUTO PUMP OILER



Fig. No. 1658

This oiler is equipped with the Howland Pump, having two valves working automatically, which deliver the oil to the bearings in a drop or spoonful, at one stroke of the plunger, depending upon the distance of the stroke. Body of the oiler is drawn seamless in one piece from 20-gauge cold rolled steel; heavily electro copper plated.

### LIST PRICES PER DOZEN

No.	Cap., Pts.	Diam., In.	Spout, In.	List, Per Doz.
800	¼	3¾	3	\$23.00
801	½	3¾	5	23.50
802	¾	3¾	9	24.00
803	1	4½	5	25.25
804	1	4½	9	25.75

DISCOUNT .....45% OFF



### WIDE MOUTH MOWING MACHINE OILERS



Fig. No. 825T  
**PLAIN  
TINNED**

**\$1.00**

★ **NET DOZEN**

Fig. No. 700  
**ADVERTISING  
OILER**

To sell or give  
a way. Ena-  
meled and sten-  
ciled with your  
name and ad-  
dress (not to  
exceed 3 lines).  
No less than  
100 sold.

Lots of 100  
**\$11.50**  
★ **NET PER 100**  
Lots of 200  
**\$10.00**

Fig. No. 825E  
**ENAMELED  
TINNED**

**\$1.20**

★ **NET DOZEN**

Bodies drawn seamless from one piece sheet steel. Capacity 12 oz., diam. 3 in., spout 4 in., ht. over all 7 1/2 in., mouth 1 1/2 in. Roll thread unless otherwise stated. Straight spouts furnished unless bent spouts are specified.

No.	Finish	★ Net
825T	Plain Tinned	Dozen, \$ 1.00
825E	Enameled Tinned	Dozen, 1.20
705	Copperized roll thread	Dozen, 1.80
625	Copperized cut thread	Dozen, 2.15
700	Advertising Oiler	Per 100, 11.50
	Lots of 200	Per 100, 10.00

### EAGLE RAINBOW IMPROVED HYDRAULIC PUMP OILERS

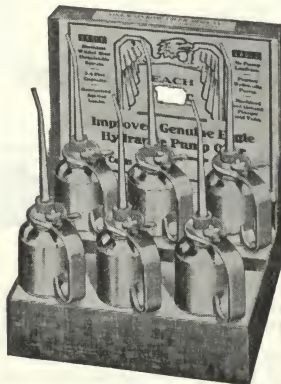


Fig. 4777

Seamless drawn body, tinned to prevent corrosion. Genuine double seamed bottom. Seamless welded steel detachable bent spout. Spout and handle coppered finish. Bodies enameled red, green, and blue. Positive action hydraulic pump. Ball valves. No pump leathers. Machined and ground brass plunger. 3/4 Pint Capacity. 6 in Display.

★ **NET DOZEN OILERS, \$9.60**

### "YEAR 'ROUND" PUMP OILERS

A New Improved Pump  
Oilier that will deliver five  
times more oil to a stroke  
than most pump oiliers.

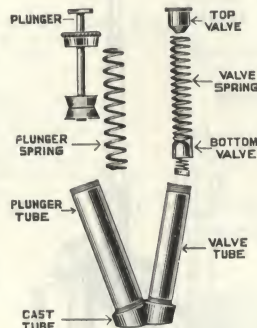


Fig. 3350



#### PUMP AND VALVE CONSTRUCTION

Will operate under all conditions and at a  
angle even when held upside down. A drop of  
can be pumped at a time or at the same stroke sho  
oil 20 to 25 feet. Will operate in hot summ  
weather or below zero weather and will pump  
to the last teaspoonful.

The valve mechanism can be easily and quick  
taken apart and cleaned by unscrewing the spo  
and lifting up the top valve. This is a patented fe  
ture and means that "Year 'Round" pump oilier c  
be used indefinitely. The plunger can be remov  
and cleaned quickly. Made with a large filler op  
ing located on the side of oilier dome making it a  
cessible for removing the cap and refilling with oil  
No. 500 is furnished with a non-leakable hea  
brass spout made from solid seamless brass tubin  
Nos. 1000, 2000, 3000 are heavy soldered ste  
spouts and are interchangeable.

Mfrs. No.	Cap. Pints	Length Spout, Inches	Height Dome, Inches	Height Overall, Inches	Diam. Dome, Inches	Weight, Pounds, Dozen	List Each
500	3/4	5	4 1/8	9 1/4	3 1/16	11 1/16	\$1.20
1000	1	10	4 7/8	13 7/8	3 1/4	14	1.60
2000	1 1/2	12	5 1/4	17 3/8	3 3/8	16 1/16	1.80
3000	2	15	5 3/8	20 3/8	4 1/8	19 1/16	2.00

**DISCOUNT ..... 10% OFF**

### CHACE PATTERN STEEL MACHINE OILERS

Fig. No. 1327

Seamless body and screw  
one piece, tin bottom. Light  
strong and durable.



No.	[Diam.,] In.	Spout, In.	List per 1
00	2 1/4	2 1/8	\$1.00
0	2 1/4	2 1/8	1.00
1	2 1/4	2 1/8	1.00
2	3 1/4	3 1/8	1.00
3	3 1/4	4 1/8	2.00
4	4 1/4	4 7/8	2.00
5	4 1/2	4 1/4	3.00

**DISCOUNT ..... 25% OFF**



# PLEWS FORCE-FEED OILERS

**THE PLEWS OILER IS DIFFERENT.** With the PLEWS each squirt is going to be just as much or as little as you want it to be and you know this actually means a lot when you are working with machinery. Sort o' seems that you develop an instinct for oiling; you know just exactly how much to give each moving part of a machine.

## THERE'S A PLEWS OILER FOR EVERY NEED

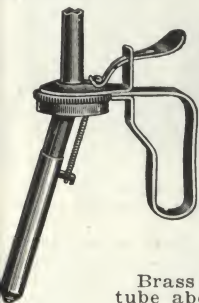
Note the variety of shapes and angles to the spouts, practical and fool-proof. No leather valves or plungers to deteriorate or get out of order. It is primed ready for instant use and cannot clog. Saves time and oil. Proper lubrication is always assured. Dispenses the heaviest of oils. The positive, never failing force of the pump action means that you can use just as heavy an oil as may be required for any lubrication. Oil that would clog the average can shoots through the spout with unailing certainty.

### FEATURES YOU WILL LIKE:

- ALL-METAL action. No wear-out.
- Few and simple parts.
- Angle-spout models for the most convenient position in oiling. Detachable spouts on the larger sizes.
- Lever handle for ease in operating and assuring perfect control.
- Entire working assembly—spout, pump and handle—in one DETACHABLE unit.
- Oil driven out by MECHANICAL force, not air-pressure.
- Pumps any oil that will flow—either winter or summer.
- Will feed when held in any position.
- Well-balanced, comfortable to handle.

### THE PLEWS PUMP

Brass tube at bottom slides over the fixed brass tube above it. A spring inside the lower tube returns it after each stroke. Metal ball valves at base of each tube. No leather valves or plungers.



## PISTOL OILER

### FORCE-FEED

The handiest and best oiler yet designed for machines of all kinds, automobiles, etc.

### BUILT FOR CONSTANT USE

Built to stand up under constant use. Reliable pumping principle. All metal parts. No leather plungers or valves. Drawn steel body, copper-plated. Solid brass cap. Packed in individual descriptive boxes, complete with spring clip holder for machine or car. Weight of one dozen in carton, 9 pounds. Spout 6 inches long. Height of oiler, 5 inches.



Fig. 3778

Mfrs. No. 100— $\frac{1}{4}$  pint.

LIST EACH, \$1.50

## ANGLE SPOUT MODELS



Fig. No. 3779  
Mfrs. No. 20— $\frac{3}{4}$  Pint.  
5 Inch Spout.  
LIST EACH, \$1.35



Fig. No. 3780  
Mfrs. No. 40—1 Pint.  
9 Inch Spout  
LIST EACH, \$1.85



Fig. No. 3781  
Mfrs. No. 42D.  
9 Inch Detachable Spout.  
LIST EACH, \$2.00

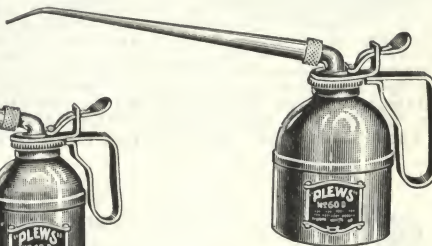


Fig. No. 3782  
1 Quart. 11 $\frac{1}{2}$  Inch Spout

No. 60D—Detachable Spout.  
LIST EACH, \$2.60

## UPRIGHT SPOUT MODELS

EVERY OILER GUARANTEED BY THE MANUFACTURER



Fig. No. 3783  
Mfrs. No. 5  
 $\frac{1}{2}$  Pint.  
5 Inch Spout.  
LIST EACH, \$1.00



Fig. No. 3784  
Mfrs. No. 10.  
 $\frac{3}{4}$  Pint.  
5 Inch Spout.  
LIST EACH, \$1.25



Fig. No. 3785  
Mfrs. No. 30.  
 $\frac{3}{4}$  Pint.  
9 Inch Spout.  
LIST EACH, \$1.35

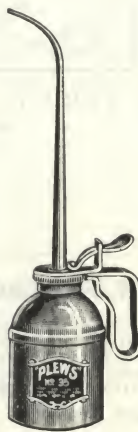


Fig. No. 3786  
Mfrs. No. 35.  
1 Pint.  
9 Inch Spout.  
LIST EACH, \$1.75

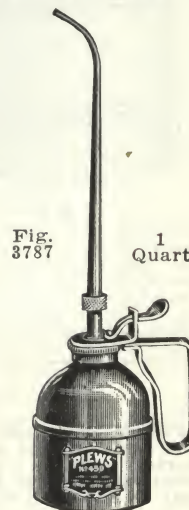


Fig. 3787  
1 Quart

Mfrs. No. 45.  
10 Inch Solid Spout.  
LIST EACH, \$2.25  
Mfrs. No. 45D.  
11" Detachable Spout.  
LIST EACH, \$2.35

## DISCOUNT PLEWS OILERS

{ 1 Dozen or More.....25% OFF  
{ Lots of 1 to 11.....10% OFF



### JUSTRITE UNDERWRITERS' LABELED NON-EXPLOSIVE SAFETY CANS

No Leakage! No Waste! Safe! Reduces Insurance Rate!

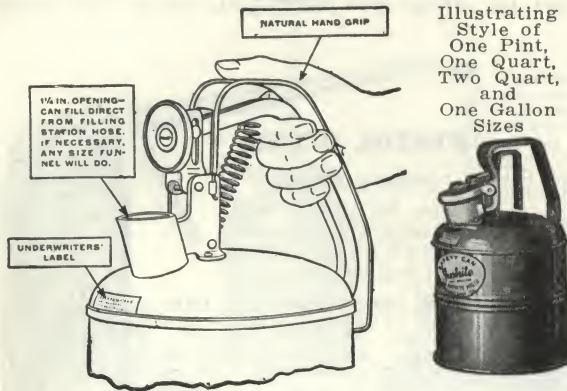


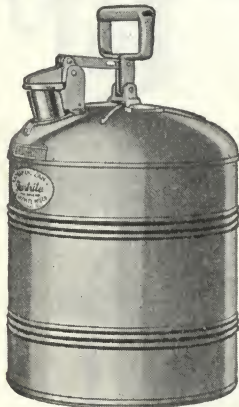
Fig. 3971

Efficient and economical. For using and storing explosive or inflammable oils, including Gasoline, Benzine, Kerosene, Turpentine, Naphtha, Alcohol and other volatile liquids.

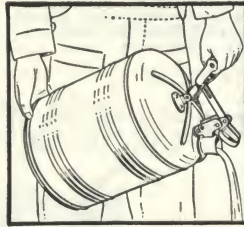
Each can is approved, inspected and labeled by the Underwriters' Laboratories under the direction of the National Board of Fire Underwriters. Also approved, inspected and labeled by the Associated Factories Mutual Fire Insurance Companies.

The natural hand grip lever operated on a roller bearing opens spout cap in one operation. Quick and handy. The cap closes automatically as soon as the grip is released. The bottom on the 3 gallon and 5 gallon size is reinforced by a steel ring. The body of the can is made of heavy coated lead plate, double seamed and soldered and finished in baked red enamel.

No special funnels are required. Nozzle is 1 1/4 inches in diameter. Sizes 1/2 to 5 gallons can be filled directly from the hose at any gasoline filling station without the use of a funnel. Can be filled in 20 to 45 seconds.



Illustrating Two Gallon Three Gallon and Five Gallon Sizes with Carrying Handle



#### ★ NET PRICES PER CAN

Capacity	★ NET EACH
One Pint	\$1.40
One Quart	\$1.40
Two Quarts	\$1.75
One Gallon	\$2.10
Two Gallons	\$2.80
Three Gallons	\$3.50
Five Gallons	\$4.20

### SAFETY STORAGE CAN

For properly and safely storing bales of excelsior, straw, hay, clean waste and waste paper used for packing materials. Also used for storing matches. Strongly made of heavy galvanized steel. Hinged cover, steel angle for reinforcements and legs, raising bottom of can four inches from floor. All sizes 36 in. high.

#### ★ NET PRICES EACH

No.	Capacity	Size	Wt., Lbs.	Net Each
No. 1	1 Bale	20x28	62	\$18.00
No. 2	2 Bale	20x52	91	27.00
No. 4	4 Bale	40x52	135	45.00

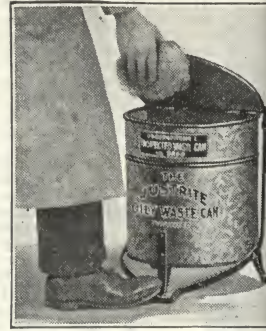
	No. 1	No. 2	No. 4
With Fusible Link	\$20.70	\$29.70	\$47.70
With Fusible Link and Casters	25.20	34.20	56.70
With Casters	22.50	31.50	54.00
Fusible Links only		Net Dozen, \$3.60	

### JUSTRITE UNDERWRITERS' LABELED FOOT-OPERATED OILY WASTE CANS

Each can is approved, inspected and labeled by the National Board of Fire Underwriters, Inc., and Factory Mutual Fire Insurance Companies.



Fig. 3019



Opens With the Foot Closes Automatically

Made of 24 gauge galvanized sheet steel with gauge cover, 1/4 in. band iron legs and handle. Operator steps on handle to open cover, it closes automatically. Dimensions given are for can only: add in. to height for legs.

#### ★ NET PRICES PER CAN

Size No.	Capacity	Size	Net Each
1	6 gal.	11 3/4 x 13	\$3.00
2	8 gal.	12 1/2 x 14	3.50
3	10 gal.	13 1/2 x 15	4.00
5	14 gal.	15 1/2 x 17	4.50

### UNDERWRITERS' OILY WASTE CANS



Fig. 3972

Approved, inspected and labeled by the Underwriters' Laboratories; also labeled by the Associated Factories Mutual Fire Insurance Companies. Reduce fire hazard to a minimum. Can be emptied every night. Made of 22 gauge, body of 24 gauge, galvanized sheet steel. Legs and handle of 1/4 in. band iron. Double seamed and soldered. Leak proof. Height given is exclusive of legs, add 4 inches for legs.

#### ★ NET PRICES PER CAN

Size No.	Capacity, Gallons	Diameter, Inches	Height, Inches	★ NET EACH
1A	6	11 3/4	13	\$2.00
2A	8	12 1/2	14	\$3.00
3A	10	13 1/2	15	\$3.50
5A	14	15 1/2	17	\$4.50
8A	24	18 1/2	20 1/2	\$7.00
9A	40	22	25 1/2	\$10.00

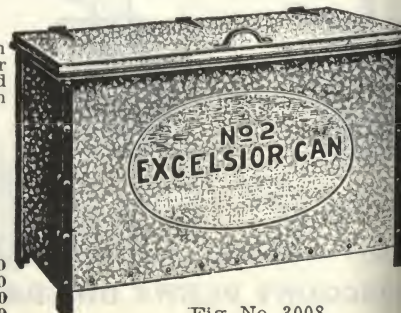


Fig. No. 3008



# Allen's Superior Cotton Waste

**The Quality  
Never Varies**



Fig. No. 2534

Prices Are for Full Bales Weighing Approximately 100 Lbs.

Prices Subject to Change Without Notice

## Colored Waste

### ★ NET POUND, FULL BALES \*

Fancy Colored Waste, made of a choice selection of fancy-colored stock. ★ NET POUND, \$0.11

No. 1 Colored Waste, a good waste of uniform grade. ★ NET POUND, \$0.10-1/2

No. 2 Colored Waste, good value for ordinary work. ★ NET POUND, \$0.10

No. 3 Colored Waste. ★ NET POUND, \$0.09-1/2

### \* List Extra for Less Than Full Bales

Note: The above prices are on full bales of 100 lbs. On shipments of less than a full bale we make the following additional charge per pound:

## White Waste

### ★ NET POUND, FULL BALES \*

No. 1 Best White Machine Cop Waste, 100% fine threads. ★ NET POUND, \$0.15

No. 1 White Waste, contains no shredded lace curtain stock or other material that will not give maximum absorbing qualities. ★ NET POUND, \$0.14

No. 2 White Waste is a mixed stock of good color and is first rate value. ★ NET POUND, \$0.13

50-lb. bales.....	3½ cent per lb. additional
25-lb. bales.....	4 cent per lb. additional
10-lb. bales.....	5 cent per lb. additional
5-lb. bales.....	8 cent per lb. additional

## TUBULAR KNITTED GAUZE

Fig. 3618  
A high grade polishing cloth for use on automobiles, furniture, woodwork, etc.

25 Pound Bale.....	★ NET POUND, \$0.60
10 Pound Bale.....	★ NET POUND, \$0.63
5 Pound Bale.....	★ NET POUND, \$0.64

## WASHED WIPING RAGS

For some purposes, wiping rags are preferred to waste. Our rags have been thoroughly washed and sterilized and contain no buttons or pieces of metal. About 100 lbs. in full bale.

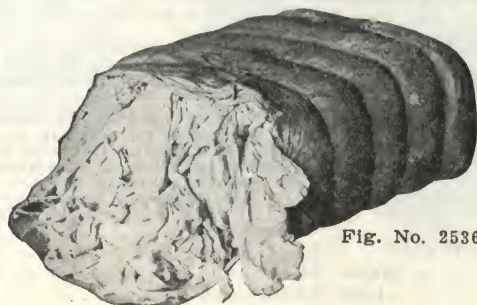
### ★ NET POUND, FULL BALES\*

White .....	\$0.15
Near White .....	\$0.14
White Knit .....	\$0.15
Colored .....	\$0.12

Balbriggan Knit, Prime light weight. Bleached. High grade. Uniform pieces. Selected as to weights. About 125 pounds in full bale.....\$0.19

50 Pound Lots .....	3½c each pound additional
25 Pound Lots .....	4 c each pound additional
10 Pound Lots .....	5 c each pound additional
5 Pound Lots .....	8 c each pound additional

Fig. No. 2536





# LARD OIL



Fig. No. 2826

Used for thread cutting. It is a well known fact that Pure Lard Oil is the best oil to use for threading. Price includes can.

**\$0.45**

★ NET 1 QUART CAN

**\$1.50**

★ NET 1 GALLON CAN

**\$6.50**

★ NET 5 GALLON CAN

## 3-IN-ONE OIL

3-IN-ONE is a blended oil that actually does three things:

It Penetrates and Lubricates.  
It Cleans and Polishes.  
It Prevents Rust.

Size	No. to Carton	Weight Pounds	LIST EACH
<b>In Tin Cans</b>			
1 Ounce .....	144	26	\$0.10
3 Ounce .....	144	50	\$0.25
Gallon .....	6	50	\$5.00

<b>In Glass Bottles</b>			
1 Ounce .....	144	37	\$0.10
3 Ounce .....	72	40	\$0.52
8 Ounce .....	36	50	\$0.50
Broken Carton .....			20% OFF
Full Carton Lot .....			25% OFF

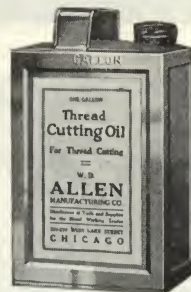


Fig. 4829

It is a scientific blend of animal, mineral and vegetable oils and possesses superior qualities for oiling all light mechanisms. Nationally advertised.

## THREAD CUTTING OILS

Gives Cutting Tools Longer Life



"ALL-CUT"

Fig. 3178

A combination of oil sulphurized and compounded with high grade petroleum. The oil gives the proper lubricating qualities, while the sulphur adds to the cooling quality, effecting quite a saving in the sharpening of tools. "All-Cut" can be used on automatic and hand screw machines, pipe threading, taps, dies, drill presses, punch presses and work of similar nature where a long tool life is desired. Can included.

1 Gallon Can....★ NET GALLON \$0.90  
5 Gallon Can....★ NET GALLON \$7.70  
10 Gallon Can....★ NET GALLON \$15.00

## "EMULSIFYING"

For Mixing with Water

Fig. 3953

A clear, transparent sulphurized lard and mineral oil compound. Recommended for all types of metal cutting operations. Absorbs heat and prolongs tool life. Mixes easily and stays mixed. Ideal as a refrigerant as well as a lubricant. Acts as a rust preventive. Prevents system from clogging. Permits high speeds and heavy cuts with an excellent finish. Never turns rancid. Contains no rosin or rosin oil. Can included.

1 Gallon Can....★ NET GALLON \$0.90  
5 Gallon Can....★ NET GALLON \$7.70  
10 Gallon Can....★ NET GALLON \$15.00

## DIXON'S GRAPHITE GEAR LUBRICANT No. 677



Fig. 2528

For all transmissions and differentials. It permits gears to shift as easily in zero weather as in midsummer. Recommended for use in high pressure lubricating systems. It flows over gears like oil, yet clings to the teeth.

## DIXON'S GRAPHITE CUP GREASE No. 3

Used in compression cups and with all high pressure lubrication systems. It is NOT readily thinned or stiffened by heat or cold. It retains its effectiveness as a friction eliminator for long periods, over an extremely wide temperature range.

1 Pound Can .....



Fig. 2529

## "MAGIC" CUP GREASE



Fig. No. 1338

Magic Cup Grease is compounded from the best material, and is one of the best lubricants on the market. It is made in three regular grades which are all adapted for stationary, marine and tug boat engines; also shafting and journals.

No. 1. Very soft, for extreme cold weather, and on exposed journals.

No. 2. Harder than No. 1, and is used on ordinary journals in cold weather, or on very cool or slow running journals.

No. 3. Harder than No. 2, and the grade which is ordinarily used in moderate and warm weather.

★ NET PRICES PER CAN

5 lb. cans.....\$0.80  
10 lb. cans.....1.40

## ALBANY CUP GREASE



Fig. No. 1339

Pure yellow tallow compound contains no metal-eating acids or harmful matter. Lubricates all bearings on any machine and line shafting efficiently and economically.

No. 1 is used on ordinary journals in cold weather, or in very cold or slow-running journals, also elevator slides.

No. 2 is harder than No. 1, and is the grade originally used in moderate and warm weather and general shafting.

No. 3 is adapted to the use of all stationary, marine and tug boat engines; also shafting in warm weather, dynamos, general electrical and high speed machinery.

★ NET POUND

5-lb. cans .....



## LUBRI-TASGON

A Quick Penetrating Super-Lubricant and Rust Solvent.



Fig. 2608

Immediate penetration to unreachable parts. Lasting lubrication under heat and cold. Loosens rust, dirt, gummed grease, etc., and leaves a film of high grade oil. FOR: loosening nuts and bolts, etc.; breaking in new motors and reground blocks; sticky valves; valve oilers; spring lubrication; crankcase and transmission in cold weather; boat motors; high speed bearings; etc.

1 oz. cans.....★ NET EACH, \$0.22  
2 oz. cans.....★ NET EACH, \$0.30  
4 pt. cans.....★ NET EACH, \$ .70  
1 gal. cans.....★ NET EACH, \$3.50

## MEXICAN BOILER GRAPHITE

CUT COAL COSTS. KEEP YOUR STEAM BOILERS CLEAN AND FREE FROM SCALE.



Fig. No. 2531

A sure, safe, quick acting preparation of natural amorphous graphite, combined with other ingredients. Depends on its mechanical action for effect and gives better results than chemical compounds, without their injurious after effects. Effective in any feed water, prevents foaming and is easy to feed. Its continual application will soften old hard scale and prevent new scale from forming.

100 lb. keg.....★ NET POUND, \$0.14  
200 lb. half bbl.★ NET POUND, \$ .12  
400 lb. bbls....★ NET POUND, \$ .10

## "X" RADIATOR LIQUID



Fig. No. 2707



Fig. No. 2706

Repairs leaking auto radiators and cracked water jackets. Makes cooling system leak proof, rust proof and scale proof.

No. 2707. Standard size can.  
★ NET EACH, \$0.75  
No. 2706. Ford size can.  
★ NET EACH, \$0.45

## "X" BOILER LIQUID



Fig. No. 2532

A boiler liquid used for permanently repairing leaks and cracks in boilers by pouring it in the boilers while filled with water. Also loosens scale and rust and helps prevent them from forming.

Quart cans .....★ NET EACH, \$2.50  
Half gallon .....★ NET EACH, \$4.20

## "X" BOILER FLUSH



Fig. 4414

Removes scale, sludge, and rust from high and low pressure steam boilers and hot water heating systems. Reduces fuel bills, 1/4 inch of scale requires 25% more fuel. Keeps your heating system working at the highest efficiency.

Half Gallon...★ NET CAN, \$1.50

## BOILER SOLDER SEAL



Fig. No. 3438

Metallic powder repair and cleaner. Aluminum base. Permanently stops all ordinary leaks and cracks in all heating boilers, also steam boilers below the water line, with a tough metallic filling that expands and contracts with heat and resists pressure.

12 or more cans.....★ NET EACH, \$3.50  
6 to 11 cans.....★ NET EACH, 3.55  
1 to 5 cans.....★ NET EACH, 4.20

## BLUE SEAL INSTANT BOILER CLEANER



Fig. 4048

A powdered chemical for quickly and surely cleaning steam boilers. Removes the cause of surging, foaming and priming. Dissolves oil, grease, rust, scale and other heat resisting substances in one operation.

2 Pound Can.....★ NET EACH, \$ 1.25  
2 Pound Can...★ NET DOZEN, \$12.00

## PLASTIC WOOD



Fig. 4827

Plastic Wood is actually wood in putty form—that hardens into lasting wood on exposure to the air. It has all the strength and properties of wood, except grain. It takes and holds nails and screws firmly without splitting, can be planed, sawed, turned in lathe, tooled and sanded. Does not chip, splinter or crumble. Adheres permanently to any clean, dry surface — wood, metal, stone, tile, porcelain, glass. When dry it is waterproof, weatherproof, greaseproof—and takes paint, lacquer or varnish perfectly.

Natural color furnished unless other colors are specified:

Natural White (Tile)  
Walnut Cedar  
Oak Gum Wood  
Dark Mahogany Ebony  
Light Mahogany

Size	No. to Carton	Weight	LIST
	Carton	Pounds	EACH
Tube (Natural).....	36	14	\$0.10
Tube (All).....	36	7	\$0.25
1/4 Pound.....	36	14	\$0.35
1 Pound.....	12	16	\$1.00
5 Pounds.....	2	13	\$3.50
25 Pounds.....	1	34	\$12.50
Broken Carton.....			20% OFF
Full Cartons.....			25% OFF

## PLASTIC WOOD SOLVENT

Fig. 4828



Renews Plastic Wood that has hardened in the can, gives them the desired consistency and is valuable for cleaning hands or tools after using Plastic Wood.

Size	No. to Carton	Weight	LIST
	Carton	Pounds	EACH
3 Ounce .....12	2		\$0.25
8 Ounce .....6	5		\$0.50
1 Quart .....2	5		\$1.50
1 Gallon .....1	11		\$4.00
5 Gallon .....1	42		\$17.50
Broken Carton.....			20% OFF
Full Cartons.....			25% OFF

## GOODRICH PLASTIKON PUTTY



Fig. 4826

This putty affords such high resistance to moisture that it can be used for caulking and an aquarium cement.

A rubber base putty which adheres to steel, wood, or glass. Requires no mixing. Quick drying. It does not harden, does not crack nor become brittle. It withstands vibrations. Resists corrosion of chemicals and fumes. Light weight, it averages only 15 pounds to the gallon.

Pint Can .....★ NET EACH, \$0.35  
Pint (50 Cans Up).....★ NET EACH, \$0.28  
15 Pound Can .....★ NET EACH, \$2.50  
15 Pound Can (75 pound lots).....★ NET EACH, \$2.20  
75 Pound Can ..★ NET EACH, \$9.75  
225 Pound Can ★ NET EACH, \$28.12



## "UNITED STATES" ELECTRIC DRILLS

Universal Motors For A. C. or D. C. Three Conductor Cable, 1 Wire For Grounding

### 1/4 INCH AUTOMATIC Ball Bearing Universal Motor



Fig. 4781

A sturdy 1/4 inch electric drill amply powered and carefully constructed. This high power all ball bearing drill is light in weight and well balanced. Has UNIVERSAL motor; chrome nickel alloy steel gears, hardened, run in grease; high grade 3 jaw geared chuck; quick make and break thumb operated switch; three conductor cable and rubber attachment plug.

**SPECIFICATIONS:** Capacity in steel, 1/4 inches, 2000 R.P.M. under load. Net weight, 4 pounds. Standard voltage 110, also available for 32, 220 and 250 volts. Price, same all voltages.

**\$19.95** ★ NET EACH

### 3/8 INCH SPECIAL Ball Bearing Universal Motor



Fig. 4782

Light weight, balance, powerful long life motors. This drill is designed for production service and is also a good all-purpose tool. UNIVERSAL motor operates on direct or alternating current, 60 cycles or less. Equipped with ball bearings on armature and ball thrust bearing on chuck spindle. Gears are chrome-nickel alloy steel, hardened, run in grease-tight gear case; quick make and break trigger switch.

**SPECIFICATIONS:** 3/8 inch capacity in steel. 750 R.P.M. under load. Net weight, 9 pounds. Furnished for 32, 110, 220 and 250 volts, prices same for all voltages.

**\$53.00** ★ NET EACH

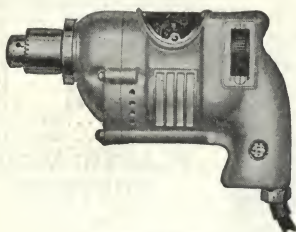


Fig. 4497

#### Quarter Inch Aero

An extremely light weight drill, smaller in size than other drills for continuous production work. Ball bearing. 1/4 inch screw back chuck. Pistol handle. 10 foot cord with plug. Universal motor for A.C. or D.C. 110 volt only.

Capacity in Steel.....0 to 1/4 Inch  
Load Speed .....2500 R.P.M.  
Weight .....2 1/2 Pounds  
Volts .....110 Only

★ NET EACH, \$32.50

Bench Drill Stand..★EXTRA, \$14.00

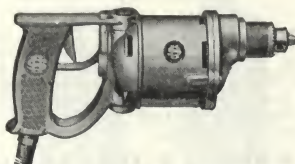


Fig. 4498

#### Quarter Inch Regular

A very powerful drill designed, built and guaranteed to give continuous service in its rated capacity.

Fig. 5171

#### Quarter Inch Heavy Duty

With more power than the regular 1/4 inch drill. Designed for heavy continuous production work.

Size Inch	Cap. in Steel	Load Speed R.P.M.	Wt. Lbs.	★ NET EACH
1/4 Reg.	0-1/4	2000	5-3/4	\$32.50
1/4 H.D.	0-1/4	2000	7	\$45.00



Fig. 4783

#### Five Sixteenths Inch Heavy Duty Ball Bearing

A well balanced, easy to handle drill for continuous service for drilling operations. UNIVERSAL Motor operates on A.C. or D.C. With ball bearings on armature and ball thrust bearing on chuck spindle. Removable cover for inspection of brushes, switch and cable connections. Chrome-nickel alloy steel gears run in grease-tight gear case. Quick make and break trigger switch. Cable protector. Indestructible rubber attachment plug. 5/16 inch capacity in steel. 1000 R.P.M. under load. Net weight, 7-1/4 pounds. Furnished for 32, 110, 220 and 250 volts, same prices for all voltages.

★ NET EACH, \$50.00

## U. S. BENCH DRILL STANDS AND POST DRILL BRACKETS

Fig. 4784. For use without special adapters. These stands increase the utility of electric drills by converting them into drill presses. Enclosed compression spring counterbalances weight of drill and aids in lifting the drill out of the work when drilling is completed.

Style	Type Q		Type 1B		Type 1-1/2	
	Bench	Post	Bench	Post	Bench	Post
For Electric Drills, in.	1/4 & 5/16	3/8 Spec.	3/8 H.D.	1/2	1/2; 5/8; 3/4; 7/8; 1	No. 3 & 4
For Screw Drivers, Nos.	1 and 2	1 and 2				
For Tapper, Nos.	1 and 2	1 and 2				
Height column above base, inches	22	28	28	46	34	58
Diameter of column, inches	1-1/2	1-1/2	1-1/2	1-1/2	1-7/8	1-7/8
Size base, inches	6x7	6x7	9x9	9x9	10x16	10x16
Maximum feed, inches	4	4	4	4	5	5
Maximum distance, chuck to base	12	18	14	32	19	43
Center of chuck to column, inches	4-1/4	4-1/4	6-1/2	6-1/2	6-1/2	6-1/2
Net weight, pounds	29	39	55	98	98	147
Shipping weight, pounds	50	65	85	155	135	200
★ NET EACH	\$14.00	\$18.00	\$22.00	\$26.00	\$32.00	\$36.00
Type 1-1/2 A Stands. (Not described.) For use with 1-1/4, 1-1/2 and 2 inch electric drills. Bench Stand					★ NET EACH, \$50.00	
Post Stand						★ NET EACH, \$54.00





# "UNITED STATES" ELECTRIC DRILLS

Universal Motors For A.C. or D.C. Three Conductor Cable, 1 Wire For Grounding

## 1/2 INCH SPECIAL BALL BEARING UNIVERSAL MOTOR

U. S. 1/2 INCH SPECIAL BALL BEARING 3/8 INCH HEAVY DUTY UNIVERSAL MOTOR

**\$58.00**

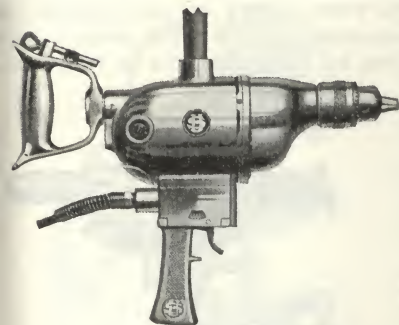


Fig. 4499

A powerful, ball bearing drill of rugged construction, well balanced and easily handled. Has a wide range of usefulness and is an exceptionally fine tool for all-purpose work.

**MOTOR**—Universal, operates on direct or alternating current (60 cycles or less) circuits with voltage 10% higher or lower than marked on the name plate.

**SPECIFICATIONS**—Chrome-nickel alloy steel gears, hardened, run in grease; quick make, quick break two-pole trigger switch; ball bearings; combination breast plate and spade handle; two side handles.

Capacity in steel inch . . . .	1/2	3/8
Speed under load, R.P.M.	450	750
Net weight, pounds . . . . .	14-1/2	13
Furnished for 32, 110, 220 and 250 volts. Price, same all voltages.		

★ **NET EACH** . . . . . \$58.00 \$57.00

## 1/2 INCH COMMANDER BALL BEARING UNIVERSAL MOTOR

**\$35.00**

A low priced, high quality drill for all around service with plenty of power for tough drilling in metal or wood, and for driving hole saws, wood augers, etc.

The bearings on the armature shaft are S. K. F., grease packed, assuring smooth operation and long life. The chuck spindle is provided with ball thrust bearings. Heavy chrome nickel steel gears run in grease tight gear case. Three jaw geared chuck. 2-pole Underwriter's Approved Switch in side handle with lock to hold in ON position. 15 feet 3-wire Underwriter's cable. Indestructible rubber attachment plug.

**SPECIFICATIONS**: 1/2 inch in steel; 450 R. P. M. load speed; net weight, 11 pounds. 16 inches overall. Heavy duty UNIVERSAL Motor can be furnished for 32, 110, 220 or 250 volt service. Prices same for all voltages.

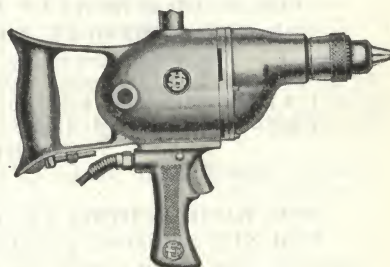


Fig. 4785

## 1/2 INCH HEAVY DUTY — \$70.00 5/8 INCH STANDARD DUTY — \$74.00

Powerful ball bearing drills for continuous heavy production service, as well as reaming and honing. Ruggedly constructed. UNIVERSAL motor for A. C. or D. C.

**SPECIFICATIONS** — Chrome-nickel alloy steel gears, hardened, run in grease; quick make, quick break two-pole trigger switch; ball bearings; two side handles, one removable; combination breast plate and spade handle.

Capacity in steel, inch	1/2	5/8
Speed under load, R.P.M.	450	400
Net weight, pounds . . . . .	16-1/2	17
Furnished for 32, 110, 220 and 250 volts, same price.		

★ **NET EACH** . . . . . \$70.00 \$74.00

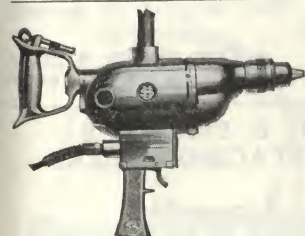


Fig. 4786

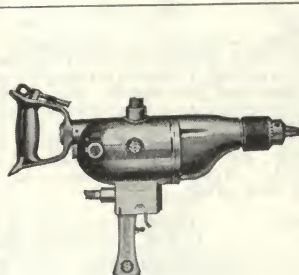


Fig. 4500

### 5/8 and 3/4 Heavy Duty

The most powerful of drills within their rated capacities

For continuous production service. Rugged. Powerful. Double row of ball thrust bearings on chuck spindle. Combination breast plate and spade handle. 12 foot cord and plug. Volts, 110, 220, 250 or 32. Universal motor. Specify voltage.

Size Inch	Cap. in Steel	Load Speed R.P.M.	Wt. Lbs.	★ NET EACH
5/8 H.D.	5/8	400	23 1/2	\$83.00
3/4 H.D.	3/4	400	25	\$92.00
Bench Drill Stand. ★ EXTRA, \$32.00				
Post Drill Bracket. ★ EXTRA, \$36.00				

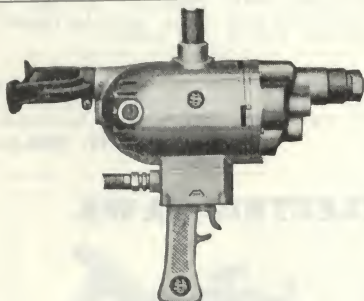


Fig. 4501

### 3/4 Inch Heavy Duty

Extremely rugged. Built for large work but comparatively light in weight. No. 3 Morse Taper Chuck, for taper shank drill bits. 1/2 to 3/4 inch. Ball bearings. Two side handles, one removable. Feed screw. Combination breast plate and spade handle. 12 foot cord and plug. Universal motor. Specify voltage.

Capacity in Steel, Inches . . . . .	3/4
Load Speed, R.P.M. . . . .	280
Weight, Pounds . . . . .	24
Volts . . . . .	110, 220, 250, 32
★ <b>NET EACH</b> . . . . . \$98.00	
Bench Drill Stand. ★ EXTRA, \$32.00	
Post Drill Bracket. ★ EXTRA, \$36.00	

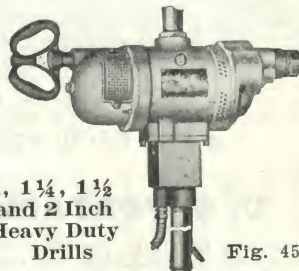


Fig. 4502

For large and heavy work. Continuous service. Can be used for reaming in steel up to 3/4 of their capacity. Morse Taper Chucks: 1 Inch, No. 3; 1 1/4 Inch, No. 4; 1 1/2 Inch, No. 4; 2 Inch, No. 5. Ball bearing. Feed screw. Double grip handle. 12 foot cord and plug. Volts, 110, 220 and 250. Specify voltage. Universal motor.

Size Inch	Cap. in Steel	Load Speed R.P.M.	Wt. Lbs.	★ NET EACH
1	1	200	48	\$115.00
1 1/4	1 1/4	180	70	\$165.00
1 1/2	1 1/2	105	73	\$248.00
2	2	80	85	\$275.00
Bench Drill Stand, 1 Inch . . . . \$32.00				
Bench Drill Stand, 1 1/4, 1 1/2, 2. . \$50.00				
Post Drill Bracket, 1 Inch . . . \$36.00				
Post Drill Bracket, 1 1/4, 1 1/2, 2. . \$54.00				



# "UNITED STATES" ELECTRIC TOOLS

## U. S. ELECTRIC SCREW DRIVERS & NUT SETTERS

Universal motor. A. C. or D. C. Specify 110 or 220 volts. With positive clutch, normally held in "open" position; and operates by pressure on the tool and releases when screws or nuts are driven up tight. The bits, locked in place by a spring pressed ball, are equipped with a "slot finder," also with removable blade. Ball bearing. Used widely in production lines by manufacturers of furniture, boats, radios, automobiles, etc.

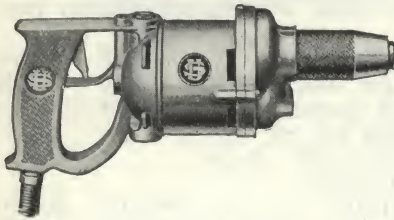


Fig. 4594

### FOR WOOD SCREWS UP TO NO. 12 FOR NUT SETTING UP TO 1/4 INCH

**Type 1.** For wood screws up to No. 12. For lag screws up to 3/16 inch. For bolts and nuts up to 1/4 inch. 11-3/4 by 4-3/4 inches. Net weight, 7-1/2 pounds. Load speed, 450 R. P. M.

★ NET EACH, \$55.00

Reversing Switch .....★ EXTRA, \$7.50  
Adjustable Clutch .....★ EXTRA, \$12.00

### FOR WOOD SCREWS UP TO NO. 16 FOR NUT SETTING UP TO 3/8 INCH

**Type 2.** For wood screws up to No. 16. For lag screws up to 5/16 inch. For bolts and nuts up to 3/8 inch. 12-1/2 by 4-3/4 inches. Net weight, 8-1/2 pounds. Load speed, 450 R. P. M.

★ NET EACH, \$72.00

Reversing Switch .....★ EXTRA, \$7.50  
Adjustable Clutch .....★ EXTRA, \$12.00

Fig. 4787

### Midget Size

For wood screws up to No. 8. Not illustrated. With removable handle. Net weight, 4 pounds. Load speed, 450 R.P.M.

★ NET EACH, \$53.00

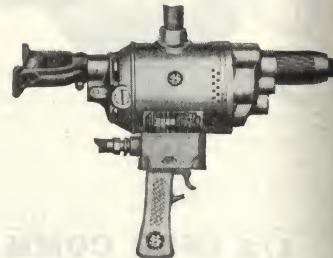


Fig. 4788

### FOR WOOD SCREWS UP TO NO. 20 FOR NUT SETTING UP TO 1/2 INCH

**Type 3.** For wood screws up to No. 20. For lag screws up to 3/8 inch. For bolts and nuts up to 1/2 inch. 15-1/2 by 4-3/4 inches. Net weight, 14 pounds. Load speed, 175 R. P. M.

★ NET EACH, \$94.00

Reversing Switch .....★ EXTRA, \$10.00

### FOR LARGEST SIZE WOOD SCREWS FOR NUT SETTING 3/4 INCH AND UP

**Type 4.** For wood screws up to largest size. For lag screws up to 1/2 inch. For bolts and nuts up to 3/4 inch. 19 by 5 inches. With combination spade and side handle. Net weight, 24 pounds. Load speed, 100 R. P. M.

★ NET EACH, \$120.00

Reversing Switch .....★ EXTRA, \$10.00

## U. S. PORTABLE TAPPER

### Powerful Time Saving Portable Tappers

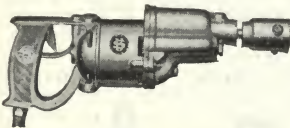


Fig. 4596

**Type 1.** 5/16 inch tap in iron. 3/8 inch tap in steel. 3/8 inch tap in brass. 14 1/4 by 4 1/2 inches. Net weight, 7 3/4 pounds.

★ NET EACH, \$75.00

Universal motor. D.C. or A.C. A slight pressure drives the machine forward; with automatic reverse by backward pull when hole is tapped. Specify 110 or 220 volts.

**Type 2.** 3/8 inch tap in iron. 1/2 inch tap in steel. 1/2 inch tap in brass. 15 by 4 1/2 inches. Net weight, 9 pounds.

★ NET EACH, \$83.00

## U. S. PORTABLE SURFACE GRINDERS

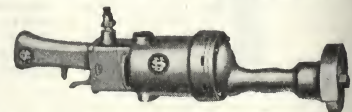


Fig. 4509

Light in weight. Extremely durable. For grinding, buffing, polishing, sanding down castings, dressing off gas and arc welds, etc. Universal motors. Chrome-manganese steel gears. SKF ball bearings. Double pole, quick make, quick break switch. Aluminum body. Guard. Grinding wheel. 12 foot cord and plug.

Wheel Size	Load R.P.M.	Horse Power	Wt. Lbs.	★ NET EACH
2-1/2x1/2x1/2	8800	1/5	10	\$50.00
4x3/4x1/2	5000	1/4	11	\$62.00
5x3/4x5/8	4200	1/3	18	\$80.00
6x1x5/8	3600	1/2	23	\$100.00
8x1x5/8	3100	1	53	\$145.00

H.P.	Wt. Lbs.	R.P.M.	Wheel, Inches	★ NET EACH
110 or 220 Volts, A.C., 1, 2, 3 Phase, 60 Cycle				
1/2	64	3400	6x1 x 5/8	\$108.
1	85	3400	8x1 x 7/8	\$155.
220 or 440 Volts, A.C., 2, 3 Phase, 60 Cycle				
1 1/2	38	3400	8x1 x 7/8	\$150.
2	94	1700	10x1 1/2 x 7/8	\$168.
3	178	1700	10x2 x 1 1/8	\$210.

### For 110 and 220 Volts, D.C.

H.P.	Wt. Lbs.	R.P.M.	Wheel, Inches	★ NET EACH
1/2	54	3500	6x1 x 5/8	\$113.
1	80	2700	8x1 x 7/8	\$150.
2	132	2050	10x1 1/2 x 7/8	\$175.
3	170	2050	10x2 x 1 1/8	\$220.

## U. S. PORTABLE ELECTRIC SAWS

These are the only portable electric saws having ALL these features: Patented beveling device, sets any angle without a try square. Instantly set depth gauge will operate straight up and down. Does rafter or bevel cutting, cross, rip, plane, floor and pocket cutting on stone, slate, wood or any building material. As an aid to even sawing a blower keeps saw dust away from markings.

Ball bearing. Light weight. Sturdy. Will withstand severe usage. Top and bottom guards for protection. Two adjustments; for angle 0° to 60°; and depth 0 to full capacity. Handsaw type handle. Universal motor, D.C. or A.C. Specify 110 or 220 volt. Heavy duty bearings throughout. With cable. With case, 1 combination blade, 1 cross cut blade, saw wrench, and grease gun.

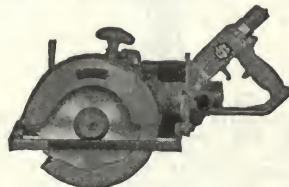


Fig. 4595

Size Inch	Load R.P.M.	Depth Inch	Wt. Lbs.	★ NET EACH
6	4500	1 7/8	10	\$70.00
7	4000	2 3/8	13 1/4	\$95.00
8	3600	2 7/8	23 3/4	\$135.00
9	3500	3 1/8	24 3/4	\$150.00
10	3300	3 7/8	25 3/4	\$165.00
11	3200	4 1/8	26 3/4	\$175.00
Radial Arm.....				★ EXTRA, \$78.00



# "UNITED STATES" ELECTRIC TOOLS

## U. S. FLEXIBLE SHAFT MACHINE

"V" BELT DRIVE. BALL BEARING.



Fig. 4503

### Four Speed

Has four speeds of 950, 1250, 2400 and 3600 R.P.M., supplying the proper speed for any job. The motor and driven shaft are equipped with ball bearings, also the hand piece. Motor 40° rating and will stand a momentary overload of 100%. Specify voltage, cycle and phase for A.C., voltage for D.C. Rubber covered cable. Highest quality flexible shaft. Ceiling and larger types can be furnished, complete details on request.

Horse Power	Arbor Size	Shaft Length	Core Diam.	★ NET EACH
1/4	5/8 by 1	5 1/2	1/2	\$135.00
1/2	5/8 by 1	5 1/2	3/4	\$174.00
1	5/8 by 1 1/4	6 1/2	5/8	\$221.00

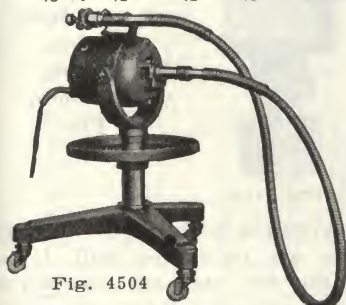


Fig. 4504

### Single Speed, 3600 R.P.M.

Horse Power	Arbor Size	Shaft Length	Core Diam.	★ NET EACH
1/4	5/8 by 1	5 1/2	1/2	\$100.00
1/2	5/8 by 1	5 1/2	3/4	\$148.00
1	5/8 by 1 1/4	6 1/2	5/8	\$192.00



Fig. 4505

### Right Angle Hand Piece

1 to 1 Ratio (Without Pad)	.. \$40.00
1 1/2 to 1 Ratio (Without Pad)	.. \$45.00
2 to 1 Ratio (Without Pad)	.. \$45.00
7 Inch Flexible Pad (1/4 H.P.)	.. \$ 7.00
9 Inch Flexible Pad (1/2, 1 H.P.)	.. \$ 9.00

### Fig. 4506D Abrasive Discs

7 Inch, 16, 36, 50 or 100 grit	.. \$0.30
9 Inch, 16, 36, 50 or 100 grit	.. \$0.40

### Fig. 4506B Lamb's Wool Polishing Bonnet

7 Inch	.. \$2.00
9 Inch	.. \$2.50

### Fig. 4506P Felt Rubbing Pad

7 Inch	.. \$1.50
9 Inch	.. \$2.00

## U. S. AIR CONDITIONED SANDERS

New Features: Air Cleaner—New Air Outlets (blows dirt away from operator)—Dust Proof Switch—More Power—Dust Seal Ball Bearings throughout—Spiral Tooth Right Angle Gears—Balance.

7 Inch Utility	..... \$39.50
7 Inch Standard	..... \$53.00
7 Inch Heavy Duty	..... \$75.00
9 Inch Light Duty	..... \$78.00



Fig. 4597

Ruggedly constructed, dependable, and indispensable tools for body shops, woodworking plants, fender repair shops, sheet metal shops, etc. They are ideal for use where a polish is required on wood or metal. The disc is flexible, which permits covering a surface without danger of gouging. For sanding operations prior to painting or refinishing. For touching up rough spots, smoothing castings, cleaning concrete mixers and forms, all sanding jobs, etc.

**SPECIFICATIONS:** UNIVERSAL Motor operates on direct or alternating current of the same voltage, 60 cycles or less, 32, 110, 220 or 250 volts. Spindle is 5/8 inch diameter, 16 thread. Ball bearings throughout. Light angle spiral tooth gears. 15 feet flexible rubber covered cable with attachment plug, flexible disc pad. 4 each No. 16, No. 35 and No. 50 grit abrasive discs.

Size	Under Load	Weight	★ NET EACH
7 Inch Utility	2200 R.P.M.	8-1/2 Pounds	\$39.50
7 Inch Standard	3200 R.P.M.	11 Pounds	\$53.00
7 Inch Heavy Duty	3800 R.P.M.	10 Pounds	\$75.00
9 Inch Light Duty	2700 R.P.M.	12-1/2 Pounds	\$78.00

Fig. 4600 7 In. Sanding Discs. ★ NET EACH, \$0.30 5 in pkg., ★ NET, \$1.35  
Fig. 4600 9 In. Sanding Discs. ★ NET EACH, \$0.40 5 in pkg., ★ NET, \$1.80

## U. S. HI-SPEED PORTABLE GRINDER

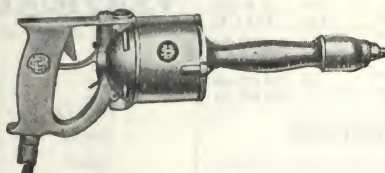


Fig. 4608

Cool running. For continuous production service. For general industrial use. Universal motor, A.C. or D.C. Specify 110 or 220 volts. Precision ball bearings enclosed in dust-proof housing. Concealed three-jaw geared chuck, 0 to 1/4 inch. Chuck key. With cable. Maximum grinding wheel to use is 2 inch diameter. No load speed 17000 R.P.M.

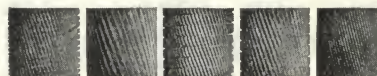
Type	Watts	Weight Pounds	Length Inches	★ Net Each
With Back Handle				
HSG20	140	4 1/4	15	\$27.50
HSG18	220	5 1/2	15 1/2	\$36.00
Without Back Handle				
HSG20X	140	3 3/4	12	\$27.50
HSG18X	220	5 1/8	12	\$36.00

## ROTARY HIGH SPEED STEEL FILES

Fig. 4609

For use with Hi-Speed grinders, Flexible Shaft machines, etc. 15/64 inch shank. Length of shank varies from 1 1/2 to 2 1/2 inches. Made of high speed steel.

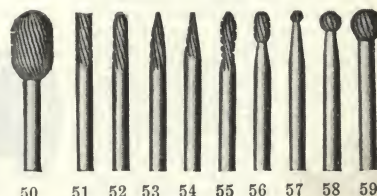
- A. Medium or fine cut.
- B. Coarse, extra fine, or cast iron cut.
- C. Fine cut, double high speed steel.



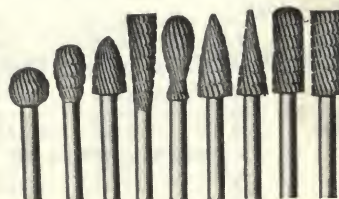
Cast Iron Cut    Coarse Cut    Med. Cut    Fine Cut    Extra Fine Cut

★ NET EACH

Style No.	Length Cutter	Max. Diam.	A	B	C
50	1	5/8	2.25	2.80	3.00
51	3/4	15/64	0.85	1.05	1.10
52	3/4	15/64	0.90	1.10	1.20
53	3/4	15/64	1.05	1.35	1.40
54	5/8	15/64	1.00	1.25	1.35
55	3/4	7/32	1.25	1.50	1.65
56	1/2	7/32	1.25	1.50	1.65
57	11/64	11/64	1.35	1.70	1.80
58	19/64	19/64	1.60	1.95	2.10
59	29/64	29/64	1.90	2.40	2.55
60	39/64	39/64	2.25	2.80	3.00
61	3/4	29/64	1.95	2.40	2.60
62	13/16	15/32	1.60	2.00	2.15
63	1 1/8	7/16	1.60	2.00	2.15
64	1 3/8	15/32	1.95	2.40	2.60
65	1 3/8	7/16	1.70	2.10	2.20
66	1 3/8	7/16	1.40	1.80	1.95
67	1 3/8	15/16	1.50	1.90	2.00
68	1 3/8	15/32	1.40	1.80	1.95



50    51    52    53    54    55    56    57    58    59



60    61    62    63    64    65    66    67    68

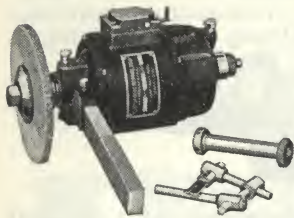


# "UNITED STATES" ELECTRIC GRINDERS

Information And Prices On Complete Line Of Grinders On Request

## U. S. TOOL POST ELECTRIC GRINDER

Fig. 4319



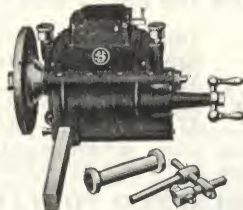
For use on lathes with compound rest. Applications are grinding centers, reamers, dies and rolls; can be used on shapers and planers for surface grinding. Compact. Built for continuous operation. Split taper bronze bearings, adjustable to wear. Dust-proof collars. Index for cutter grinding; internal grinding attachment 4 inches long;  $1\frac{1}{4} \times \frac{3}{4} \times \frac{1}{4}$  inches. SPECIFY 110 or 220 volts.

Type	H.P. & Current	Speed R.P.M.	Wheel Size	★ NET EACH
R	$\frac{1}{4}$ D.C.	3600	$6 \times \frac{3}{8} \times \frac{1}{2}$	\$75.00
RA	$\frac{1}{4}$ A.C.	3450	$6 \times \frac{3}{8} \times \frac{1}{2}$	\$60.00
RR	$\frac{1}{2}$ D.C.	3000	$8 \times \frac{3}{4} \times \frac{5}{8}$	\$95.00
RRA	$\frac{1}{2}$ A.C.	3450	$8 \times \frac{3}{4} \times \frac{5}{8}$	\$90.00

## HORIZONTAL FEED CENTER GRINDERS

Fig. 4621

For use on shapers, planers, boring mills and lathes. Motor and equipment same as designated for tool post grinders. Wheel guard furnished if desired. H and JH are for D.C., 110 or 220 volt; HA and JHA are for A.C., 60 cycles, 1, 2 or 3 phase; HU (Universal) for either A.C. or D.C., 60 cycles or less.



Type	H.P.	Size Wheel	Speed R.P.M.	Horiz. Feed	Wt. Lbs.	★ NET EACH
H	$\frac{1}{4}$	$6 \times \frac{3}{8} \times \frac{1}{2}$	3500	$2\frac{3}{4}$ "	24	\$80.00
HA	$\frac{1}{4}$	$6 \times \frac{3}{8} \times \frac{1}{2}$	3400	$2\frac{3}{4}$ "	32	\$75.00
JH	$\frac{1}{2}$	$8 \times \frac{3}{4} \times \frac{5}{8}$	3000	$5\frac{1}{2}$ "	63	\$105.00
JHA	$\frac{1}{2}$	$8 \times \frac{3}{4} \times \frac{5}{8}$	3400	$5\frac{1}{2}$ "	60	\$100.00

## U. S. ANGLE PLATE GRINDERS



Fig. 4622

For use on shapers, lathes (14 inch or larger swing), planers and boring mills. Mounted on angle plate which straddles the tool post of the lathe, can be raised or lowered to suit the height of centers, swiveled at any angle, and reversed for grinding close to tailstock centers. Wheel guard furnished if desired. HB and HBB are for D.C., 110, 220 volt; HBA and HBBA are for A.C., 1, 2 or 3-phase, 60 cycles.

Type	Horse Power	Size Wheel	Speed R.P.M.	Wt. Lbs.	★ NET EACH
HB	$\frac{1}{4}$	$6 \times \frac{3}{8} \times \frac{1}{2}$	3600	24	\$75.00
HBA	$\frac{1}{4}$	$6 \times \frac{3}{8} \times \frac{1}{2}$	3450	28	\$70.00
HBB	$\frac{1}{2}$	$8 \times \frac{3}{4} \times \frac{5}{8}$	3000	54	\$105.00
HBBA	$\frac{1}{2}$	$8 \times \frac{3}{4} \times \frac{5}{8}$	3450	62	\$100.00

## U. S. VERTICAL FEED ANGLE PLATE GRINDERS

For use on shapers, planers, boring mills and lathes. Applications:—grinding centers; reamers; cutters; dies; rolls; journals; crankshafts; and surfaces. Mounted on angle plate assuring rigidity during operation. Combination of both vertical and horizontal feed, 20% additional. Horizontal angle plate furnished in place of vertical without charge. Vertical adjustment;  $\frac{1}{4}$  &  $\frac{1}{2}$  H.P., 3 inch; 1, 2, 3 H.P., 5 inch.

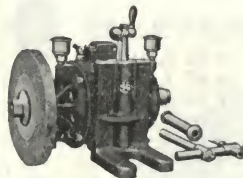


Fig. 4511

Type	H.P.	Speed R.P.M.	Wheel Inches	★ NET EACH
<b>For A.C., 60 Cycle, 1, 2 or 3 Phase 110 or 220 Volt</b>				
JA	$\frac{1}{2}$	3400	$8 \times \frac{3}{4} \times \frac{5}{8}$	\$110.00
JKA	1	1750	$10 \times 1 \times \frac{7}{8}$	\$155.00
MA	2	1750	$12 \times 1\frac{1}{4} \times \frac{7}{8}$	\$240.00
MMA	3	1750	$14 \times 1\frac{1}{2} \times 1\frac{1}{8}$	\$290.00
<b>For D.C. 110 or 220 Volt</b>				
J	$\frac{1}{2}$	3000	$8 \times \frac{3}{4} \times \frac{5}{8}$	\$115.00
JK	1	2400	$10 \times 1 \times \frac{7}{8}$	\$165.00
M	2	2050	$12 \times 1\frac{1}{4} \times \frac{7}{8}$	\$255.00
MM	3	1450	$14 \times 1\frac{1}{2} \times 1\frac{1}{8}$	\$310.00

## PAN-AMERICAN HIGH-SPEED GRINDER

FOR PRECISION AND ACCURATE WORK

For use on 10 inch and larger lathes; planers; boring mills; etc.; and will grind within 2 inches of the maximum swing. Used for accurate external, internal or surface grinding. Universal ball bearing motor. The angle plate is bolted to the tool rest of the lathe, has mounted on it the ball bearing spindle, which has a vertical adjustment of 4 inches and can also be set at an angle. Motor and grinding spindle can be turned end for end when grinder is used on rear of lathe. Speeds of 30,000, 16,500, 9500 and 5500 R.P.M. are obtainable by changing pulleys and belts. Internal spindle has 3 inch reach, 6 inch furnish in place of 3 inch on special order. Two belts. Four pulleys. Four wheels.

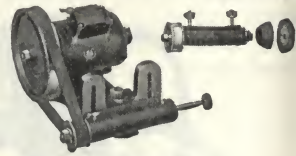


Fig. 4607

**Type HLLU.**  $\frac{1}{4}$  horse power. Specify 110 or 220 volts. External wheel, 4 by  $\frac{3}{8}$  by  $\frac{1}{2}$  inch. Internal wheels,  $1\frac{1}{4}$  by  $\frac{1}{4}$  by  $\frac{1}{4}$  and 1 by  $\frac{1}{4}$  by  $\frac{1}{4}$  inches. Face cup wheel,  $3\frac{1}{4}$  by  $1\frac{1}{4}$  by  $\frac{1}{2}$  inch. Net weight, 40 pounds.

★ NET EACH, \$160.00

**Type HLSLU.**  $\frac{1}{2}$  horse power. Specify 110 or 220 volts. External wheel, 6 by  $\frac{1}{2}$  by  $\frac{1}{2}$  inch. Internal wheels,  $1\frac{1}{4}$  by  $\frac{1}{4}$  by  $\frac{1}{4}$  and 1 by  $\frac{1}{4}$  by  $\frac{1}{4}$  inches. Face cup wheel,  $3\frac{1}{4}$  by  $1\frac{1}{4}$  by  $\frac{1}{2}$  inch. Net weight, 50 pounds.

★ NET EACH, \$195.00

## "UNITED STATES" ELECTRIC VERTICAL SPINDLE GRINDERS

Heavy  
Duty  
Ball  
Bearings  
Operate  
In Bath  
of Oil



Fig. 4620

For Use On  
Planers,  
Boring Mills,  
Lathes,  
Milling  
Machines,  
Etc.

For heavy thrust grinding with spindle in horizontal position. For use on boring mill, lathe, planer, milling machine, etc., they are mounted at any angle, horizontal to vertical. Motor, 40° Centigrade ratings, momentary overload capacity more than 100%. Heavy duty ball bearings support spindle. Bearings operate in bath of oil, enclosed in leakproof housing. Motor switch with cable, and one grinding wheel either straight or cup shape of size listed.

Furnished for 220, 440 or 550 volts, 2 or 3-phase, 25 to 60 cycles, alternating current, 110 and 220 volt, direct current. For other than 50 or 60 cycles, A.C., increase price 10%. For 110 volts, A.C. increase price 10%. Angle plate mounting with screw feed, either horizontal or vertical, can be furnished at 10% additional. Combination horizontal and vertical feed at 20% additional.

Type	Horse Power	Speed R.P.M.	Cup Wheel Inches	Straight Wheel Inches	A.C. ★ NET EACH	D.C. ★ NET EACH
AG1	1	3600	$5 \times 3-1/2$	$8 \times 1 \times 7/8$	\$180.	\$200.
AG2	2	3600	$5 \times 3-1/2$	$8 \times 1-1/2 \times 7/8$	\$270.	\$300.
AG3	3	3600	$5 \times 4$	$8 \times 2 \times 1-1/8$	\$330.	\$360.
AG4	5	1800	$10 \times 4$	$12 \times 2 \times 1-1/4$	\$405.	\$500.
AG5	7-1/2	1800	$10 \times 4$	$14 \times 2 \times 1-1/2$	\$500.	\$600.
AG10	10	1200	$16 \times 4$	$18 \times 3 \times 2$	\$660.	\$860.
AG15	15	1200	$16 \times 4$	$20 \times 3 \times 2$	\$750.	\$900.



# "UNITED STATES" ELECTRIC GRINDERS

Information And Prices On Complete Line Of Grinders On Request

## U. S. TYPE XX PRECISION GRINDER



Fig. 4789

The U. S. Type XX Precision Grinder can be supplied for either the external or internal grinding. The ball bearing grinding wheel spindles are interchangeable on corresponding sizes. These grinders are designed for a wide range of accurate work. They are adaptable for use with lathe, planer, boring mill, milling machine, etc.; for internal or external grinding and can be used in vertical or horizontal position. The grinding wheel spindles are equipped with matched precision ball bearings and are enclosed in dust proof housing.

Can be furnished for direct current or alternating current any standard voltage; 25 to 60 cycle, 1, 2 or 3-phase. (Motors are NOT universal). Alternating current prices shown in price sheet are for 1, 2 or 3-phase for types XX1 and XX2; and are for 2 or 3 phase grinders of 1-1/2, 2, 3 and 5 H. P. sizes.

For single phase grinders of 1-1/2 H. P. and larger add 10% to A. C. list price.

The ball bearing motors are totally enclosed fan cooled, dynamically balanced, are for continuous duty within their rated capacity with temperature rise not to exceed 40° C.

Type	H. P.	Internal Spindle R. P. M.	External Spindle R. P. M.	Size of Wheel Internal Inches	Size of Wheel External Inches	Size of Arbor Internal Inches	Size of Arbor External Inches	Net Weight Pounds
XX0	1/4	15000	5500	1-1/2x3/8	4x 1/2	3/8	1/2	40
XX1	1/2	6250	3700	3-1/2x1/2	6x 3/4	1/2	3/4	85
XX2	1	6000	3000	4 x 1/2	8x1	5/8	1-1/4	155
XX3	1-1/2	6000	3000	4 x 1/2	8x1-1/4	5/8	1-1/4	170
XX4	2	4600	2350	4-1/2x3/4	10x1-1/2	3/4	1-1/2	220
XX5	3	4300	2050	5 x 3/4	12x1-1/2	3/4	1-1/2	280
XX6	5	3700	1700	6 x 1	14x2	1	2	360

Type	With External Spindle A. C.	With External Spindle D. C.	With Internal Spindle Length	With Internal Spindle A. C.	With Internal Spindle D. C.	Extra Internal Spindle	8 Inch	12 Inch	16 Inch	20 Inch	24 Inch
XX0	\$100.	\$100.		\$100.	\$100.	\$50.00					
XX1	\$145.	\$147.	12	\$145.	\$147.	\$50.00	\$45.00	\$50.00	\$50.00	\$70.00	
XX2	\$195.	\$211.	16	\$195.	\$211.	\$60.00	\$50.00	\$60.00	\$65.00	\$75.00	
XX3	\$210.	\$246.	16	\$210.	\$246.	\$65.00	\$55.00	\$65.00	\$65.00	\$75.00	
XX4	\$195.	\$334.	16	\$295.	\$334.	\$75.00	\$65.00	\$75.00	\$75.00	\$85.00	\$100.00
XX5	\$350.	\$430.	16	\$350.	\$430.	\$80.00	\$75.00	\$80.00	\$80.00	\$95.00	\$125.00
XX6	\$525.	\$690.	16	\$525.	\$690.	\$100.00	\$90.00	\$100.00	\$100.00	\$125.00	\$150.00

Prices for above machines include only one external spindle or only one regular internal spindle. Special length internal spindles can be furnished at prices shown above.

## 'UNITED STATES' ELECTRIC UTILITY BALL BEARING GRINDERS

2 and 3 Horsepower. For Alternating Current Only

These Grinders are adapted for grinding of all kinds of tool and general purpose grinding. Built for continuous service within its rated capacity.

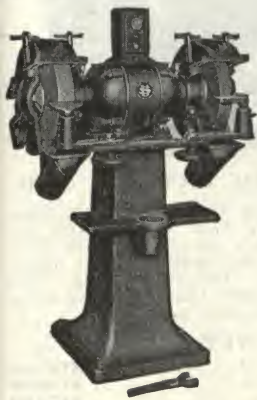


Fig. 5256

Furnished complete as illustrated, with one coarse and one fine grinding wheel. Adjustable tool rests mounted on frame. Heavy pedestal. Hinged type enclosed wheel guards, adjustable to wheel wear, with exhaust connections. Overload protection starter with push button control. Tool tray and water pot. Furnished for 220, 440 or 550 volts, 2 or 3 phase, 50 or 60 cycles alternating current. For other than 50 or 60 cycles, increase the price 10%. SPECIFY: Voltage, cycles, and phase.

Horsepower	2	3
Speed, R.P.M.	1750	1750
Size of Wheel, Inches	12x2	14x2-1/2
Diameter of Spindle between Flanges	1-1/4	1-1/4
Spindle Length Overall, Inches	27	30
Base Size at Bottom, Inches	19x20	19x20
Height from Floor to Center of Spindle	39	39
Net Weight, Pounds	460	500
★ NET EACH, A.C. ONLY	\$200.	\$250.
Eye Shields, Includes frame and glass.		
★ NET PAIR, \$7.00		

## U. S. COMBINATION GRINDER AND BUFFER



Fig. 4512

Complete with guard, adjustable tool rest, tool tray, and water pot. The buffer spindle can be used with cloth, felt, or wire wheels, (these wheels are extra). 40° motor. Specify voltage, cycle and phase for A.C. Specify voltage for D.C. For 110, 220 or 440 volts, 60 cycle, 2 or 3 phase, A.C., or 110 or 220 volts, D.C. at following prices. Abrasive wheel furnished on 1/2 and 1 horse power only.

Horse Power	Wheel Size	Speed R.P.M.	★ Net A.C.	Each D.C.
<b>BENCH TYPE</b>				
1/2	8x1 x 5/8	3450	\$100.	\$110.
1	10x1 1/4 x 3/4	1750	\$160.	\$180.
2	12x2 x 1 1/4	1750	\$258.	\$313.
3	12x3 x 1 1/4	1750	\$305.	\$405.
<b>PEDESTAL TYPE</b>				
1/2	8x1 x 5/8	3450	\$120.	\$130.
1	10x1 1/4 x 3/4	1750	\$190.	\$210.
2	12x2 x 1 1/4	1750	\$288.	\$343.
3	12x3 x 1 1/4	1750	\$355.	\$435.

## U. S. BENCH AND PEDESTAL POLISHERS



Fig. 4625

Used for continuous, heavy duty service for all kinds of buffing and polishing. Wheels are not furnished. The motors are made for heavy duty service, built to N.E.M.A. standards and are rated for continuous service at full load with a temperature rise of 40 degrees. Heavy duty bearings throughout. Double pole, quick make, quick break switch. Specify speed of 1 horsepower machines.

Horse power	Recom- R.P.M. mented to (at 60 cycle)	Wheel Size	Center of Spindle	Height to Net Weight Pounds
<b>BENCH TYPE</b>				
1/2	3450	6x 3/4 x 5/8	8 3/4	90
1	1750-3450	8x1 x 3/4	9 1/2	115
<b>WITH PEDESTAL</b>				
1/2	3450	6x 3/4 x 5/8	36	168
1	1750-3450	8x1 x 3/4	37 1/2	267


PRICES QUOTED ON REQUEST



## 'UNITED STATES' ELECTRIC GRINDERS


Information And Prices On Complete Line Of Grinders On Request

### 'UTILITY' BALL BEARING BENCH AND FLOOR GRINDERS




**\$25.00**

**6 INCH**  
Fig. 4790




**\$40.00**

**7 INCH**  
Fig. 4791




**\$60.00**

**8 INCH**  
Fig. 4792




**\$98.00**

**10 INCH**  
Fig. 4793



**6, 7, 8 Inch**  
Pedestal  
Fig. 4794



**10 In. & 8 In. H.D.**  
Pedestal  
Fig. 4795

Four sizes of ball bearing grinders shown are adapted for grinding all kinds of edge tools and general purpose grinding. Designed for continuous service within their rated capacities.

Motors—are ball bearing totally enclosed dust proof. Switch—toggle in base of all Utility grinders; centrifugal starting switch on 6", 7" and 8" grinders. Repulsion induction motor in 10" grinder.

Equipment—Furnished complete as illustrated with one medium coarse and one medium fine first grade grinding wheel. Three conductor cable and rubber attachment plug furnished on all single phase and direct current grinders. Two and three phase grinders are arranged with leads for conduit connection. Adjustable work rests and spark breakers are mounted on the wheel guards.

The motors are not universal. Specify whether for alternating or direct current. For A. C. specify voltage, cycle and phase. For D. C., state voltage only. Alternating current, 110, 220 or 440 volts, 25 to 60 cycles, 1, 2 or 3-phase. Direct current, 32 (6" only), 110, 220 volts. For other than 50 or 60 cycles, increase price 10%.

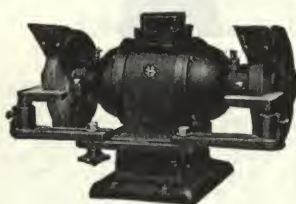
#### UTILITY BENCH GRINDER SPECIFICATIONS

Size Inch	H.P.	R.P.M.	Wheel Size Inches	Length Spindle Over All	Floor to Center of Spindle	Dimension Overall Inches	Net Weight Pounds	★ NET EACH A.C.	★ NET EACH D.C.
6	1/4	3450	6x1/2x1/2	13-1/2	5	14x 8x 8-1/2	36	\$25.00	\$42.00
7	1/3	3450	7x3/4x5/8	14-1/4	5-3/4	15x10x10	46	\$40.00	\$44.00
8	1/2	3450	8x1 x5/8	18-1/8	6	19x10x11	71	\$60.00	\$62.00
10	3/4	1750	10x1 x3/4	22-1/2	9-3/4	24x13x16	142	\$98.00	\$102.00

#### UTILITY PEDESTAL GRINDER SPECIFICATIONS

Size Inch	H.P.	R.P.M.	Wheel Size Inches	Length Spindle Over All	Floor to Center of Spindle	Dimension Overall Inches	Net Weight Pounds	★ NET EACH A.C.	★ NET EACH D.C.
6	1/4	3450	6x1/2x1/2	13-1/2	37	14x 8x40-1/2	111	\$40.00	\$57.00
7	1/3	3450	7x3/4x5/8	14-1/4	37-3/4	15x10x42	121	\$55.00	\$59.00
8	1/2	3450	8x1 x5/8	18-1/8	38	19x10x43	146	\$75.00	\$77.00
10	3/4	1750	10x1 x3/4	22-1/2	39	24x13x46	242	\$124.00	\$128.00

### U. S. BALL BEARING HEAVY DUTY BENCH AND PEDESTAL GRINDERS



**EIGHT INCH. Fig. 4508**

Wheel size is 8 by 1 by 5/8 inch. 1/2 horsepower. 3450 R.P.M., (60 cycle). 20 1/2 inch spindle overall. 21 1/2 by 12 inches. Net weight: Bench Type, 115 pounds; Pedestal Type, 225 pounds. For other than 50 or 60 cycle, A.C., increase A.C. price 10%.

#### ★ NET EACH

Bench Type, A.C. ....	\$90.00
Bench Type, D.C. ....	\$95.00
With Pedestal, A.C. ....	\$110.00
With Pedestal, D.C. ....	\$115.00

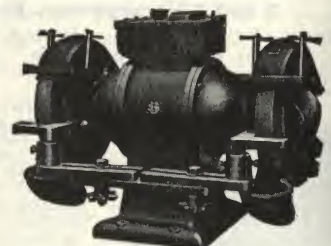
For continuous heavy duty. Ball bearings are enclosed in dust proof boxes. Totally enclosed dust proof motor. Adapted for general purpose grinding. Furnished complete with one coarse and one fine grinding wheel; adjustable guards; adjustable tool rests; cable; attachment plug and switch. The 40° motors are not universal. Specify: For A.C., voltage, cycle, and phase; for D.C., voltage. Alternating current 110, 220, or 440 volts, 50 or 60 cycle, 1, 2, or 3 phase.

**TEN BY ONE INCH. Fig. 4605**

Wheel size is 10 by 1 by 7/8 inch. 1 horsepower. 1750 R.P.M. 18 1/2 inch spindle overall. 19 1/2 by 14 inches. Net weight: Bench Type, 180 pounds; Pedestal Type, 260 pounds. For other than 50 or 60 cycle A.C., increase A.C. price 10%.

#### ★ NET EACH

Bench Type, A.C. ....	\$120.00
Bench Type, D.C. ....	\$123.00
With Pedestal, A.C. ....	\$140.00
With Pedestal, D.C. ....	\$143.00



**TEN BY 1 1/2 INCH. Fig. 4606**

Wheel size is 10 by 1 1/2 by 7/8 inch. 1 horsepower. 1750 R.P.M., (60 cycles). 22 1/4 inch spindle overall. 23 1/4 by 14 inches. Net weight: Bench Type, 190 pounds; Pedestal Type, 270 pounds. For other than 50 or 60 cycle A.C., increase A.C. price 10%.

#### ★ NET EACH

Bench Type, D.C. ....	\$145.00
Bench Type, A.C. ....	\$160.00
With Pedestal, A.C. ....	\$175.00
With Pedestal, D.C. ....	\$190.00



**"UNITED STATES" ELECTRIC TOOLS****Information and Prices On Complete Line Of Grinders On Request****U. S. BALL BEARING GRINDERS**

Fig. 4513. Mfrs. 10

2 to 7½ horsepower for extra heavy duty service. Built to N.E.M.A. standards. Enclosed heavy duty ball bearings support the heavy one-piece alloy steel spindle. Equipped with remote control, assuring motor protection under all conditions. Guards are hinged door type, adjustable to wheel wear. Equipped with shaft locking device, adjustable tool rests and eye shields. Wheels are extra. Direct current and other current prices on request.

H.P.	Speed, R.P.M.	Wheel Inches	Spindle, Inches
	A.C., 110, 220, 440, or 550 Volts. 2 or 3 Phase. 50, or 60 Cycle.		
2	1750	12x2	26½x1½
3	1750	12x3	30½x1¼
5	1750	14x3	36¼x1¼
7½	1120	16x2	39x1½
7½	1120	18x3	41x1½
7½	1120	20x3	41x1½

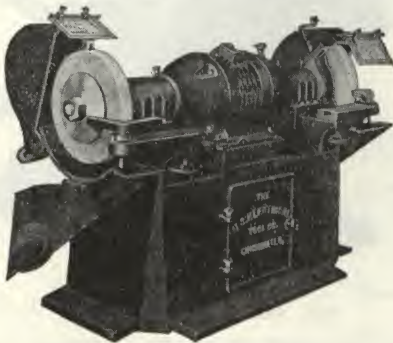
**U. S. HEAVY DUTY FOUR BALL BEARING GRINDERS**

Fig. 4515. Mfrs. 40

For heavy duty continuous production service under the most severe conditions. The rugged construction eliminates vibration and assures long and satisfactory service. Motors 40°, built to N.E.M.A. standards. Four heavy duty ball bearings, in dust-proof boxes, support the heavy one-piece spindle. Remote control in base of grinder has overload protection and no voltage release. Hinge door type guards are adjustable to wheel wear. Adjustable tool rests. Eye shields. Shaft locking device. Wheels are extra. Prices for Direct Current and for other current specifications on request.

H.P.	Speed R.P.M.	Wheel Inches	Spindle Inches
	A.C., 220, 440 or 550 Volts. 2 or 3 Phase. 50 or 60 Cycle.		
7½	1120	18x3	66½x2
7½	1120	20x3	66½x2
10	850	24x4	68¾x2¼
15	850	24x4¾	70½x2½
20	680	30x5	76½x3

**U. S. HEAVY DUTY FOUR BALL BEARING GRINDER**

Fig. 4626. Model 20

Can be furnished with 8 inch housing or with 12, or 17 inch housing at the same price. Made for continuous production service. Motors are built to N. E. M. A. standards and are rated for continuous service at a full load with a temperature rise of 40 degrees. Heavy duty ball bearings, enclosed in dust-proof boxes, support the heavy chrome manganese steel spindle. With remote control in the base which assures motor protection under all conditions. The push button is on the motor frame. Wheel guards are made of electric steel, hinged door type, adjustable to wheel wear. Adjustable tool rests and eye shields. Grinding wheels are extra.

Horse Power	R.P.M. (at 60 Cycles)	Size of Wheel (Extra)	Spindle Diameter at Flange	Length Spindle Inches	Base Size Inches	Center of Spindle to Floor	Net Lbs.
2	1750	12x2	1½	37	19x20	39	460
3	1750	12x3	1½	39	19x20	39	540
5	1750	14x3	1½	44	26x27	38	760
7½	1120	16x2	1½	46	27x29	36	1260
7½	1120	18x3	1½	47	27x29	36	1270
7½	1120	20x3	1½	47	27x29	36	1300
7½*	1800	20x3	1½	46	27x29	36	1300

\*Specify diameter of center hole of wheel to be used.

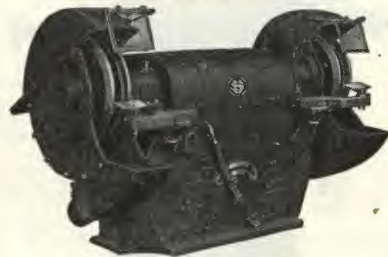
**U. S. ADJUSTABLE SPEED GRINDER  
For Alternating Current**

Fig. 4627

This adjustable speed grinder is equipped with the U.S. Patented Gear Drive Transmission. Efficient peripheral speed maintained clear down to flanges. Four wheel speeds available instantly; just shift gears with a lever. Motor built to N.E.M.A. standards, rated for continuous service with a temperature rise of 40°. Motor runs on heavy duty ball bearings enclosed in dust-proof housings. Control, push button which carries no voltage release and overload protection. Chrome-manganese steel one-piece shaft supported by four heavy duty ball bearings, protected by labyrinth seals. Patented boiler plate wheel guards, adjustable. Eye shields and adjustable tool rests are standard equipment. Furnished for A.C., 220, 440, 550 volts; 25, 40, 50 and 60 cycle, 2 or 3 phase.

Horse Power	Wheel Size	Spindle Diameter	Spindle Length	Weight Pounds
	<b>Model 64</b>			
3	12"x2"	1½"	54"	1100
5	14"x3"	1½"	56"	1180
7½	18"x2"	1½"	62"	2200
7½	20"x2"	1½"	62"	2300
	<b>Model 65</b>			
7½	18"x2"	2"	60"	2900
7½	20"x2"	2"	60"	2950
10	24"x3"	2½"	62"	3100
15	30"x3"	3"	64"	3250

**PRICES AND INFORMATION ON REQUEST**



## "UNITED STATES" ELECTRIC TOOLS

### U. S. BUFFERS AND POLISHERS

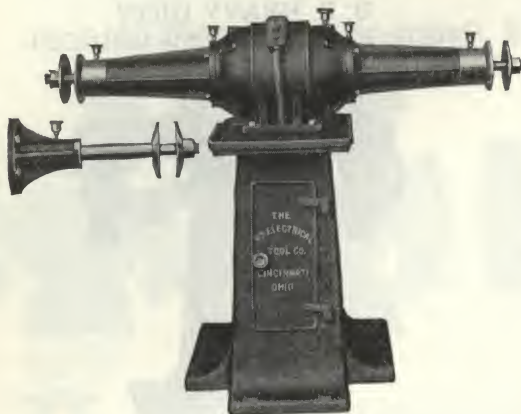


Fig. 4514. Mfrs. 90

For continuous production service under the most severe conditions. Heavy duty ball bearings support the alloy steel spindle. Extended spindle, as shown in small illustration, can be furnished. Specify size of spindle; 8, 12 or 17 inch. Furnished A.C. for 220, 440 or 550 volts, 2 or 3 phase, 50 or 60 cycle. For D.C., 110, 220 or 550 volts. Prices on request.

Horse Power	Speed, R.P.M. at 60 Cycle	Spindle Diameter Inches	Spindle Length Inches	Base Size at Bottom	Net Weight Pounds
2	1750 or 3450	1 1/4	48	19x20	440
3	1750 or 3450	1 1/4	50	19x20	480
5	1750 or 3450	1 1/4	62	26x27	650
7 1/2	1750 or 3450	1 1/4 or 1 1/2	65	26x27	695
10	1750 or 3450	1 1/2	65	26x27	755
15	1750 or 3450	1 1/2	67	27x29	800
20	1750 or 3450	1 1/2	67	27x29	850

### U. S. MULTI-SPEED BUFFER AND POLISHER—FOR A. C. ONLY



Fig. 4516. Mfrs. 95

Gives four speeds of 2000, 2200, 2500, or 2700 R.P.M. with alternating current. For the plating industry. Equipped with a composite gear drive, simple in design, positive in action, and exceptionally flexible in speed. Speeds are changed by adjusting the speed lever mounted on the front of the machine. Motors are built to N.E.M.A. standards. For continuous service. With remote control. For 220, 440 or 550 volt, A.C. 50 or 60 cycle, 2 or 3 phase, A.C. only.

Horse Power	Shaft Between Flanges	Diameter Inches at Bearing	Length Spindle Housing	Base Size Inches	Floor to Center of Spindle
1	7/8	1.378	8 or 12	22x31	39
2	1 1/8	1.378	8 or 12	22x31	39
3	1 1/4	1.575	8 or 12	22x31	39
5	1 1/2	1.575	8 or 12	22x31	39
7 1/2	1 1/4 or 1 1/2	1.968	8 or 12	24x37	39
10	1 1/2 or 1 3/4	1.968	8 or 12	24x37	39
15	2 Max.	2.362	8 or 12	24x37	39
20	2 Max.	2.362	8 or 12	24x37	39

### U.S. HEAVY DUTY SELECTIVE SPEED BALL-BEARING BUFFER AND POLISHER

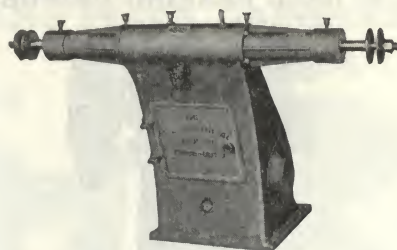


Fig. 4629

The center of spindle overhangs the front of the base 7 inches, making this machine adaptable for large work. The motor in the base is ball bearing and sets on a hinged platform with the adjusting screw on the outside for belt adjustment. This motor is built for continuous heavy duty service, according to N.E.M.A. standards, 40% temperature rise. Specify: Multiple V or flat belt. Chrome manganese one-piece shaft is supported by four heavy duty ball bearings. Length of housing is 8 inches; 12 or 17 inch lengths can be furnished at same price. Push button control, with no voltage release and overload protection. SPECIFY Spindle Speed wanted.

Horse Power	Size Arbor Inches	Floor to Center of Spindle	Length Spindle Inches	Base Size Inches	Net Weight Pounds	Inches Between Flanges
3	1 1/4	39	54 1/2	25x26	1200	1 1/4
5	1 1/4	39	56	25x26	1250	2
7 1/2	1 1/4	39	58	25x26	1700	3
10	1 1/2	39	66	29x34	1725	3
15	1 1/2	39	66	29x34	1925	3
20	1 1/2	39	68	29x34	1950	4

### U.S. COMBINATION GRINDER AND DISC GRINDER



Fig. 4628. Mfrs. Model 70.

Has a wide range of uses. The machine is complete ready to attach to the power line. Complete equipment includes right-hand universal feed table, left-hand side for grinding, two steel disc wheels and disc press. NOTE: Grinding wheel is not included in the price of 2 horsepower and larger. Hand operated switch on 1/2 and 1 horsepower. On sizes 2 horsepower and over, automatic push button control which carries overload protection and no voltage release. Ring wheel chucks can be furnished at an extra charge.

Size Disc, Inches	Size Wheel Inches	Horse Power	R.P.M. (at 60 Cycle)	Table Size Inches	Spindle Size Inches	Rocking Shaft Inches
7	8x1x5/8	1/2	3450	6x10	5/8x15	25x1 1/2
8	10x1 1/4 x 7/8	1	1750	6x10	3/4x16	25x1 1/2
10	12x2x1 1/8	2	1750	6x10	1 1/8x24	25x1 1/2
12	12x3x1 1/4	3	1750	6x10	1 1/4x25	25x1 1/2
14	14x3x1 1/4	5	1750	8x14	1 1/4x32	36x2 1/2
16	16x2x1 1/2	7 1/2	1120	8x14	1 1/2x33	36x2 1/2
18	18x3x1 1/2	7 1/2	1120	10x16	1 1/2x34	36x3
20	20x3x1 1/2	7 1/2	1120	10x16	1 1/2x34	36x3

Information and prices on Double End and larger sizes furnished on request.

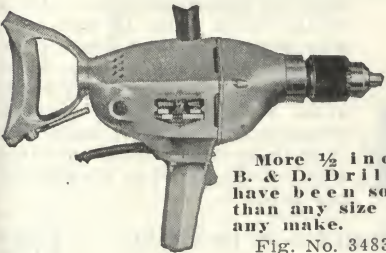
### PRICES AND INFORMATION ON REQUEST



**BLACK & DECKER PORTABLE ELECTRIC DRILLS**

**With Pistol Grip, Trigger Switch, and Universal Motor**  
**EQUIPPED WITH THREE WIRE CABLE, THE THIRD WIRE FOR GROUNDING**

**HALF INCH BALL-BEARING ELECTRIC DRILL**



More 1/2 inch B. & D. Drills have been sold than any size of any make.  
Fig. No. 3483

Light weight, easy to handle and has such exceptional power that a man cannot stall it even with the use of a bench drill stand when drilling up to its maximum capacity in steel. Its low spindle speed and its great power make it an ideal and handy tool for millwrights, electricians, garagemen, maintenance men, small shops, etc., for general drilling. Complete with cable, attachment plug and three-jaw geared chuck. Chuck key holder provided in handle.

Capacity in steel.....up to 1/2 inch  
No load speed.....400 R. P. M.  
Volts.....110, 220, 250 or 32

**\$58.00**

★ **NET EACH**

**Bench Drill Stand.** For New Half Inch Special Drill Only. Works quickly and easily. Ideal for all types of bench work. Bracket is adjustable up and down or may be swung around in a circle.

★ **NET EACH, \$22.00**  
★ **NET EACH, \$80.00**



**Quarter Inch Special Ball Bearing Drill**  
Fig. 2921

For general maintenance and light manufacturing work. With 3 jaw chuck for straight shank drills up to 1/4 inch.  
Capacity in steel.....0 to 1/4 in.  
No load speed.....2,000 R. P. M.  
Volts.....110, 220, 250 or 32  
Weight .....5 3/4 Pounds

★ **NET EACH, \$32.50**  
Grinding Outfit, Grinding Stand.  
3 by 1/2 inch wheel and arbor. ★ **Extra, \$ 4.85**  
Bench Drill Stand...★ **Extra, \$14.00**



**Quarter Inch Heavy Duty Ball Bearing Drill**  
Fig. No. 2988

For continuous production. With 3 jaw chuck for straight shank drills up to 1/4 inch.  
Capacity in steel.....0 to 1/4 in.  
No load speed.....2,000 R. P. M.  
Volts.....110, 220, 250 or 32  
Weight .....7 1/2 Pounds

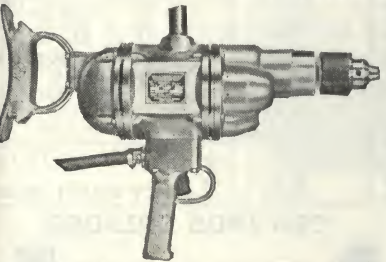
★ **NET EACH, \$45.00**  
Grinding Outfit, Grinding Stand.  
3 by 1/2 inch wheel arbor. ★ **Extra, \$ 4.85**  
Bench Drill Stand...★ **Extra, \$14.00**



Fig. No. 2991

**Five-Sixteenths Inch Ball-Bearing**  
For continuous use on production work. With 3 jaw chuck for straight shank drills up to 5/16 in.  
Capacity in steel.....0 to 5/16 in.  
No load speed.....1,400 R. P. M.  
Volts.....110, 220, 250 or 32  
Weight .....8 Pounds

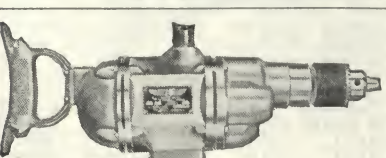
★ **NET EACH, \$50.00**  
Bench Drill Stand.....★ **Extra, \$14.00**



Ball bearings on armature shaft, intermediate gears and spindle shaft assure smooth performance and long life. For continuous production work. 3 jaw geared chuck. Detachable side handle.

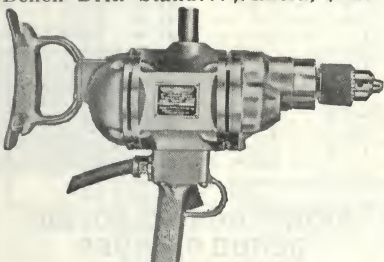
**Half Inch Heavy Duty**  
Fig. 4586  
Capacity in Steel ....Up to 1/2 Inch  
No Load Speed .....500 R.P.M.  
Volts .....110, 220, 250 or 32  
Weight .....16 1/2 Pounds

★ **NET EACH, \$72.00**  
**Five Eighths Inch Heavy Duty**  
Fig. 4481  
Capacity in Steel ....5/8 to 3/4 Inch  
No Load Speed .....450 R.P.M.  
Volts .....110, A.C. or D.C., also 220 or 250.  
Weight .....22 1/2 Pounds



★ **NET EACH, \$83.00**  
**Three Quarter Inch Heavy Duty Drill**  
Fig. 4482  
Powerful. For continuous heavy duty. Anti-friction bearings. 3 conductor cable. 3 jaw geared chuck. Detachable side handle. Weight, 27 1/2 pounds.  
Capacity in steel .....3/8 to 3/4 inch.  
No load speed .....375 R.P.M.  
Volts...110 AC or DC, also 220 or 250.  
Weight .....26 1/2 Pounds

★ **NET EACH, \$94.00**  
Bench Drill Stand ..★ **EXTRA, \$32.00**  
Post Drill Stand ..★ **EXTRA, \$36.00**



Ball bearing. For general use. Has tremendous power. Detachable side handle. Three-jaw geared chuck.

**Five Eighths Inch Standard**  
Fig. 3552  
Capacity in Steel .....5/8 to 3/4 Inch  
No Load Speed .....500 R.P.M.  
Volts .....110, 220, 250 or 32  
Weight .....17 Pounds

★ **NET EACH, \$74.00**  
**Three Quarters Inch Standard**  
Fig. 3553  
Capacity in Steel ....3/4 to 1 Inch  
No Load Speed .....425 R.P.M.  
Volts .....110, 220, 250  
Weight .....23 1/2 Pounds

★ **NET EACH, \$86.00**  
Bench Drill Stand ..★ **EXTRA, \$32.00**  
Post Drill Stand ..★ **EXTRA, \$36.00**

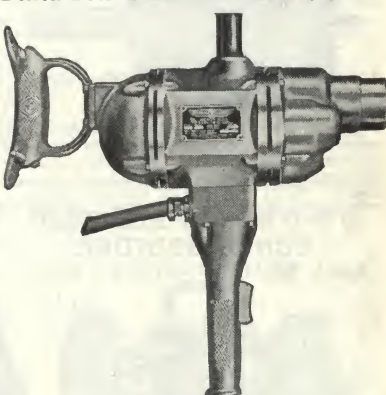


Fig. 4483

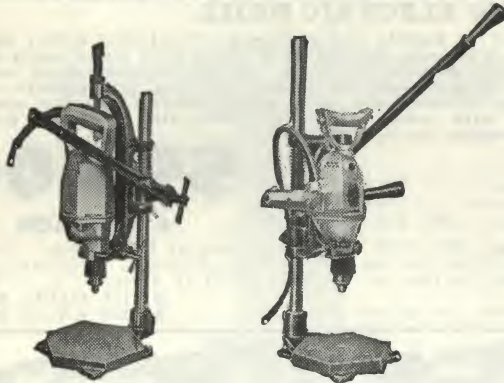
**Seven Eighths Inch Heavy Duty Drill**  
For all around heavy work. Anti-friction bearings throughout. With No. 2 Morse taper socket. 3 conductor cable. Detachable side handle.  
Capacity in Steel ..2 1/4 to 3/4 Inches  
No Load .....375 R.P.M.  
Volts.....110 A.C. or D.C. 220 or 250  
Weight .....26 1/2 Pounds

★ **NET EACH, \$98.00**  
Bench Drill Stand ..★ **EXTRA, \$32.00**  
Post Drill Stand ..★ **EXTRA, \$36.00**

**One Inch Heavy Duty Drill**  
Fig. 3554  
For heavy duty drilling. Also suitable for light reaming. No. 3 Morse taper socket. 3 conductor cable.  
Capacity in Steel ....1 1/4 to 1 Inch  
Reaming Capacity ..Up to 1/2 Inch  
No Load Speed .....350 R.P.M.  
Volts.....110 A.C. or D.C. 220 or 250  
Weight .....27 1/2 Pounds

★ **NET EACH, \$115.00**  
Bench Drill Stand ..★ **EXTRA, \$32.00**  
Post Drill Stand ..★ **EXTRA, \$36.00**



**BLACK & DECKER ELECTRIC TOOLS****DRILL STANDS****BENCH—POST—PEDESTAL**

For 1/4, 1/2 H.D. and  
5/16 Inch Drills

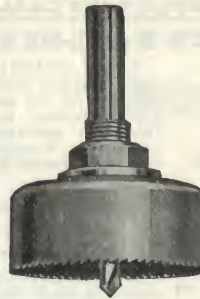
For Drills  
1/2 to 1 Inch

For extremely accurate drilling in all types of shop work including heavy duty work. The leverage of the feed handle enables the operator to exert tremendous pressure on the work. Smooth operation of the tool bracket permits accurate drilling.

Fig. No.	Drill Stand	For Drills Inches	★ NET EACH
2973-7	Bench	1/4 Spec., 1/2 H.D., 5/16	\$14.00
2973-S	Bench	3/8 Spec., 1/2 Spec.	\$22.00
2973-6	Bench	1/2 to 1 H.D.	\$32.00
2973-6PO	Post	1/2 to 1 H.D.	\$36.00
2973-6PE	Pedestal	1/2 to 1 H.D.	\$36.00

**BLACK & DECKER HOLE SAWS**

Fig. No. 3388



For use with B. & D. Drills 1/2 inch size and larger. For cutting clean, round holes in cast iron, wrought iron, steel, brass, copper, wood, etc. Made of the finest quality saw steel, carefully hardened, and strong and durable. Mandrel automatically holds a 1/4 inch twist drill which drills the pilot hole to serve as a guide for the saw.

No.	For Saws	★ NET EACH
00903	3/4 to 1 1/2 inch.....	\$1.65
00904	1 1/4 to 4 inch.....	\$1.65

**HOLE SAWS (without Mandrels)**

Saw Size Inches	Pipe Tap Inches	Conduit Size Inches	★ NET EACH	Saw Size Inches	Pipe Tap Inches	Conduit Size Inches	★ NET EACH
3/4	...	3/8	\$0.65	2 1/4	...	...	\$1.20
7/8	...	1/2	\$0.65	2 3/4	2	...	\$1.40
1	...	...	\$0.65	2 3/4	...	...	\$1.40
1 1/8	1	3/4	\$0.85	2 3/4	...	2	\$1.40
1 1/4	...	...	\$0.85	2 3/4	...	...	\$1.50
1 1/2	...	1	\$0.85	2 3/4	...	...	\$1.50
1 3/4	1 1/4	...	\$0.85	2 3/4	...	...	\$1.50
1 7/8	...	...	\$1.00	3	...	2 1/2	\$1.65
2	...	1 1/4	\$1.00	3 1/4	...	...	\$1.65
2 1/8	...	...	\$1.00	3 1/2	...	...	\$1.65
2	...	1 1/2	\$1.20	4	...	...	\$2.00

**MARVEL HOLE SAWS—High Speed Steel Teeth—Alloy Steel Body**

Fig. 5309

With genuine 18% tungsten high speed steel teeth electrically welded to a non-brittle, non-breakable chrome-vanadium alloy steel cup or body. Will cut 1-1/8 inches deep.

Saw Size Diam. Inch	Use With Arbor No.	HOLE SAW ONLY ★ NET	Saw Size Diam. Inch	Use With Arbor No.	HOLE SAW ONLY ★ NET	ARBORS No.	Hex Shank Inch	For Hole Saws
3/4	1	\$1.50	2-1/4	2 or 3	\$2.65	1	1/2	3/4 to 1 1/2
7/8	1	\$1.50	2-3/8	2 or 3	\$2.65	2	1/2	1 1/4 to 4 1/2
1	1	\$1.50	2-1/2	2 or 3	\$2.65	3	3/4	1 1/4 to 4 1/2
1-1/8	2 or 3	\$1.50	2-5/8	2 or 3	\$2.65	★ NET EACH, \$1.50		
1-1/4	2 or 3	\$1.50	2-3/4	2 or 3	\$2.65	EXTENSION		
1-3/8	2 or 3	\$1.50	2-7/8	2 or 3	\$2.65	No. 7. For Nos. 1 and 2 Arbors. 1/2 inch hexagon shank, 12 inches long, for reaching inaccessible places.		
1-1/2	2 or 3	\$1.50	3	2 or 3	\$2.65	★ NET EACH, \$1.50		
1-5/8	2 or 3	\$2.00	3-1/8	2 or 3	\$2.65			
1-3/4	2 or 3	\$2.00	3-1/4	2 or 3	\$2.65			
1-7/8	2 or 3	\$2.00	3-1/2	2 or 3	\$2.65			
2	2 or 3	\$2.00	3-5/8	2 or 3	\$2.65			
2-1/16	2 or 3	\$2.65	4	2 or 3	\$4.50			
2-1/8	2 or 3	\$2.65	4-1/8	2 or 3	\$4.50			

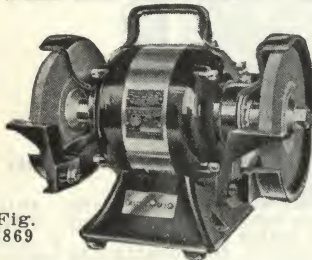
**B & D 6 INCH ELECTRIC BENCH GRINDER****BALL BEARING—HEAVY DUTY**

Fig. 3869

Powerful. Ball bearings throughout. For general purpose grinding and tool sharpening. 2 adjustable wheel guards, making it possible to grind at any position on the circumference of the wheels. 2 adjustable tool rests. Rubber feet. Lifting handle permits moving from place to suit the nature of the work. Practically vibrationless. 6 inch diameter grinding wheels by 3/4 inch face by 1/2 inch hole. 110 volt motor, 50-60 cycle, single phase, A.C. Switch in base. 3 conductor cable with attachment plug. Net weight, 40 pounds.

A.C. .... ★ NET EACH, \$38.00  
D.C. .... ★ NET EACH, \$42.00

**ACCESSORIES—★ NET EACH**

6x 3/4 x 1/2 Medium Grinding Wheel ..... \$2.50  
6x 3/4 x 1/2 Fine Grinding Wheel..... \$2.50  
6 inch Wire Wheel Brush..... \$2.50  
Pedestal ..... ★ Net Extra, \$17.50

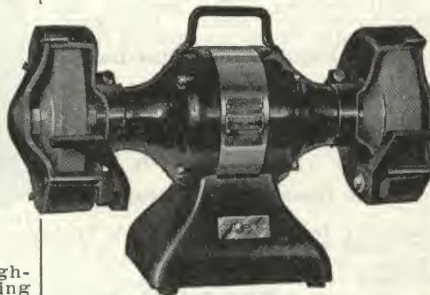
**EIGHT-INCH ELECTRIC BENCH GRINDER****BALL BEARING**

Fig. 2846

Complete as illustrated with two grinding wheels, one coarse and one fine, two wheel guards, two tool rests, electric cable fitted with attachment plug and electric switch. Not a universal motor, FOR A. C. ONLY. Specify voltage, current, and whether 25, 40, 50 or 60 cycle. Size of grinding wheel; 8 inch diameter, 1/2 inch face, 1/2 inch arbor hole. No load speed; 25 cycles, 1500 R.P.M.; 40 cycles, 2400 R.P.M.; 50 cycles, 3000 R.P.M.; 60 cycles, 3600 R.P.M. Net weight 82 pounds.

★ NET EACH ..... \$68.00

8 INCH COMBINATION. With 1 grinding wheel and 1 wire wheel brush ..... ★ NET EACH, \$72.00  
Pedestal, with water pot.

★ NET EXTRA, \$22.00

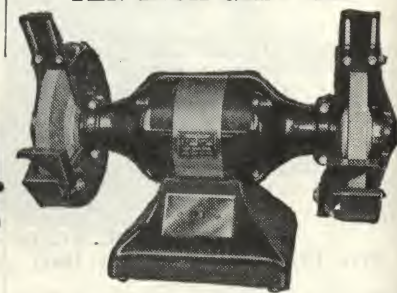
**TEN INCH GRINDER**

Fig. No. 3621

A powerful ball bearing bench grinder. For use on either bench or pedestal to take care of tool grinding and all types of general grinding and buffing. Enclosed type safety wheel guards with an adjustable tongue to follow up on wheel wear. One coarse and one fine 10-inch grinding wheel with 1-inch face by 3/4-inch hole. Weight, 125 pounds.

Current	No-load	★ NET
AC-1	Volts	R.P.M. EACH
AC-1	110	25 1500 \$98.00
AC-1	110	40 2400 \$98.00
AC-1	110	50-60 15-1800 \$98.00
AC-1	220	25 1500 \$98.00
AC-1	220	40 2400 \$98.00
AC-1	220	50-60 15-1800 \$98.00
AC-3	220-440	25 1500 \$98.00
AC-3	220-440	40 2400 \$98.00
AC-3	220-440	50-60 15-1800 \$98.00
DC	110	..... 2000 \$98.00
DC	220	..... 2000 \$98.00
Pedestal	.....	★ NET EXTRA, \$23.00



## BLACK & DECKER PORTABLE ELECTRIC TOOLS

### B. & D. PORTABLE ELECTRIC GRINDERS



Fig. No. 3354

An ideal tool for grinding welds, casting ridges, etc. Can also be used with wire wheel. Grinders embody all the essential characteristics of the B. & D. Portable Electric Drills.

Universal Motor—Operates on Direct or Alternating Current. Pistol Grip and Trigger Switch. Taper roller bearings are used at each end of the wheel spindle to insure long life. Motor is mounted on ball bearings. 15-foot electric cable, permitting ground connection which eliminates any possibility of electric shock, grinding wheel and wheel guard. Furnished for 110, 220 or 250 volts.

Grinding Wheel—	4	5	6
Diameter, Inches .....	3 3/4	5 1/2	6 1/2
Width, Inches .....	1 1/2	1 1/2	1 1/2
Hole, Inches .....	1 1/2	1 1/2	1 1/2
No Load Speed, R. P. M. ....	4800	3800	3300
Net Weight, Lbs. ....	10	15	24
★ NET EACH, All Voltages .....	\$62.00	\$80.00	\$100.00

### B. & D. ELECTRIC SCREW DRIVERS AND SOCKET WRENCHES

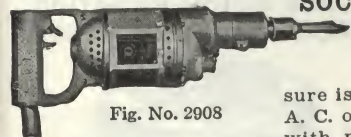


Fig. No. 2908

Spindle has positive clutch which releases when forward pressure is relieved. Operates on A. C. or D. C. 15 feet of cable with plugs. No. 12 No. 22

No Load Speed, R. P. M. ....	500	500
Net weight, pounds .....	6-3/4	9
Capacity, wood screws—No. and Length 12-2" 16-3 1/4"		
Flat Bits furnished, Nos. ....	8-12	10-14
110, 220 or 32 volts. ....	★ NET EACH, \$58.00	\$72.00
Extra Bits, Specify Screw Size Number.		
Bit, with centering sleeve .....	★ Net Each, \$1.50	
Bit, without centering sleeve .....	★ Net Each, \$1.00	

### B. & D. TORSIMETER ELECTRIC ADJUSTABLE CLUTCH SCREWDRIVER

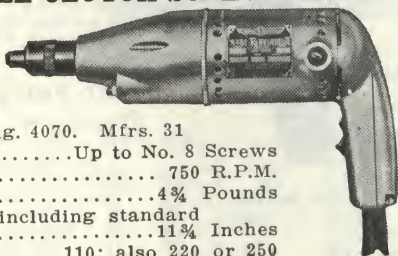


Fig. 4070. Mfrs. 31

Capacity .....	Up to No. 8 Screws
No-load Speed .....	750 R.P.M.
Net Weight .....	4 1/2 Pounds
Overall length, including standard bit .....	11 1/2 Inches
Volts .....	110; also 220 or 250

An ingenious clutch arrangement makes it possible to predetermine the amount of torque or tension to be applied to each particular screw-driving job, and every screw is driven to exactly the same depth. A positive clutch permits the spindle to idle until the bit 'finds' the screw slot, the clutch engages when pressure is exerted on the tool. Universal motor operates on either A.C. or D.C.

★ NET EACH .....

### B. & D. NO. 2 ELECTRIC TAPPER



Fig. No. 3952

For tapping threads in steel, cast iron, brass or aluminum. Three-jaw geared tap chuck automatically reverses and backs the tap out of the threaded hole at double speed. Reduces tap breakage. Ball bearings are used on the armature shaft. Morse 1067M or 2067M Spiral Pointed Machine Screw Taps are recommended. See page 313B. Specify voltage.

Capacity in Cast Iron .....	3/8 inch tap
Capacity in Steel .....	1/2 inch tap
Capacity in Brass or Aluminum .....	1/2 inch tap
No Load Speed .....	300 R.P.M.
Net Weight .....	9 1/2 Pounds
32, 110, 220 or 250 Volts. ....	★ NET EACH, \$85.00
Bench Stand for No. 2 Tapper. ....	★ NET EACH, \$14.00

### B. & D. PORTABLE ELECTRIC HAMMERS

Light weight, strong and sturdy, they make hard work easy. Packed in fibre carrying case with Chuck, Turning Wrench, Star Drill and Drift Key. SPECIFY VOLTAGE; 110 or 220 volts; A. C. or D. C.



Fig. No. ....	3637	3466	3638
Mfrs. No. ....	32	34	6
Capacity, concrete or brick. ....	5 1/2	1 1/2	1 1/2
Number of blows per minute. ....	3300	2900	2900
Overall length, inches. ....	16 1/2	18 1/2	20 3/4
Net weight, pounds. ....	10	15 1/2	23
Chuck, No. ....	0	1 & 2	2 & 3
Star drill, inches. ....	5/8	1	1 1/2
★ NET EACH, 110-220 volts .....	\$115.00	\$145.00	\$195.00

Electric Hammer Accessories, Star Drill Points, Chisels, Bull Points, Rivet Sets, Etc., prices on request.

### B. & D. PORTABLE ELECTRIC SAWS

#### SAFE!

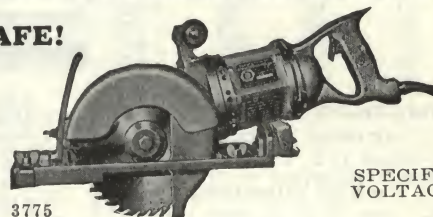


Fig. 3775

SPECIFY VOLTAGE

Powerful. Safe. Fully adjustable. Will not over-heat. Universal motor, A. C. or D. C. Chrome-nickel gears and shafts. Will bevel 0 to 45 degrees.

Equipment; one rip and one cross cut saw blade; one adjustable saw fence; three conductor cable with attachment plug, one wire for grounding; one combination packing and carrying case with handle. 32 volt, 6 inch size only. All sizes, 110, 220 or 250 volts.

Diameter Blade, Inches. ....	6	8	10
No. load speed, R. P. M. ....	3000	2500	2000
Depth of cut, adjustable, In. 0 to 1 1/2		0 to 2 1/2	0 to 3 1/2
Net weight, pounds. ....	18 1/2	26	33 1/2
★ NET EACH .....	\$80.00	\$145.00	\$180.00

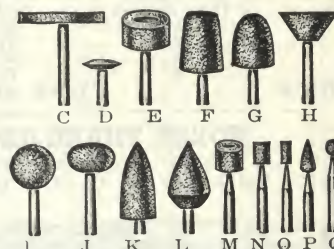
### 'HAND-EE' ELECTRIC GRINDER

#### WITH GRINDING WHEELS ON STEEL SHANKS

In ordinary usage will give 250 or more hours of intermittent service, therefore, AT A COST OF ABOUT FOUR CENTS AN HOUR, plus power, THE HAND-EE QUICKLY PAYS FOR ITSELF.



Fig. 4464



Fits the hand. Efficient. Quickly does grinding usually done with hand files or stones. Gets into hard to reach places. Does many jobs impossible to do properly otherwise. For: finishing parts, castings, tools; touching off curves, contours; sharpening taps, dies, tools; etc. 110 volt; A.C., 50-60 cycle; or D.C. Motor is 4 1/2 by 1 1/2 inches. 10,000 R.P.M. no-load speed. Weighs 1 pound. 6 foot cord and plug. Universal chuck. 0-1/2 inch. Grinding wheel shanks are 1/2 by 1 1/2 inch.

Fig. No. ....	Hand-ee Grinder	Grinding Wheels	Dressing Stone	★ NET SET
4464-A	Duco Fin.	3—C, L, H	None	\$10.75
4464-B	Duco Fin.	15—As shown	None	\$14.75
4464-W	Wheels Only .....	★ NET EACH, \$0.45		
4464-S	Dressing Stone .....	★ NET EACH, \$0.50		

NOTE: Grinding wheels on shanks can be used on most equipment having a chuck which will hold an 1/2 inch shank. Other shapes and shanks 3/8 and 1/4 inch, prices on request.



## SCREW EXTRACTOR



Fig. No. 2625

For the quick and easy removal of broken set and cap-screws, studs, stay-bolts, pipe fittings, etc.

Drill a hole in the broken screw, and insert the proper size screw Extractor, and twist to the left.

Size No.	Diam. Small End	Diam. Large End	Size Drill To Use	LIST EACH
1	.054	.117	$\frac{3}{64}$	\$0.55
2	.080	.174	$\frac{1}{16}$	.60
3	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	.65
4	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{4}$	.75
5	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	.85
6	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1.00

Discount, Nos. 1 to 6. .65% OFF

7	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	1.35
8	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	1.85
9	1	$\frac{1}{2}$	$\frac{1}{2}$	2.65
10	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	4.00
11	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	5.35
12	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	6.65

Discount, Nos. 7 to 12.55% OFF

## SETS IN BOXES

Set 62. Sizes 1, 2, 3, 4, 5. For tool room and light repair work.

★ NET COMPLETE, \$1.05

Set 66. Sizes 4, 5, 6. For general machine shop use.

★ NET COMPLETE, \$0.85

Set 64. Sizes 1, 2, 3, 4, 5, 6. For general use and garage work.

★ NET COMPLETE, \$1.40

Set 68. Sizes 6, 7, 8, 9. For heavy shop and steel work.

★ NET COMPLETE, \$3.10

CENTER KEYS OR DRIFTS  
For Sockets and Sleeves

Fig. 2578

Also known as Plain Drill Drifts. Drop forged steel, finished and hardened. Sizes will fit corresponding numbers of sockets.

Size	Fitting Sleeve Morse Taper Number	Socket or Taper Number	LIST EACH
1	1	1	\$0.30
2	2	2	\$0.35
3	3	3	\$0.40
4	4	4	\$0.50

PRICE ..... LIST NET

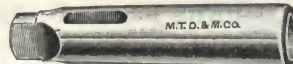
MORSE STEEL SLEEVES  
For Morse Taper Shank Tools

Fig. 202M

Size	Hole, Morse Taper, Number	Outside, Morse Taper, Number	List Each
1 to 2	1	2	\$1.80
1 to 3	1	3	2.40
1 to 4	1	4	3.00
1 to 5	1	5	4.40
2 to 3	2	3	2.40
2 to 4	2	4	3.00
2 to 5	2	5	4.40
3 to 4	3	4	3.00
3 to 5	3	5	4.40
4 to 5	4	5	4.40

Up to \$3.00 List. .... 75% OFF

Over \$3.00 List. .... 55% OFF

4 to 6 and 5 to 6. .... 30% OFF

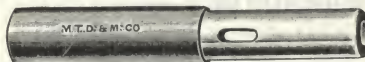
MORSE STEEL SOCKETS  
For Morse Taper Shank Tools

Fig. 200M

Size Hole M.T.	Holds Drills Inches	Whole Length Inches	Blank Length Inches	End Length Inches	List Each
1	$\frac{1}{4}$ to $\frac{9}{16}$	7	$\frac{1}{16}$	4	\$1.20
2	$\frac{3}{8}$ to $\frac{29}{32}$	8	$\frac{1}{4}$	$4\frac{1}{4}$	1.80
3	$\frac{5}{16}$ to $\frac{1}{2}$	10	$\frac{1}{2}$	$5\frac{3}{8}$	2.50
4	$\frac{11}{16}$ to 2	12	2	$6\frac{3}{8}$	4.00
5	$\frac{21}{16}$ to 3	16	$2\frac{1}{2}$	9	7.50

Plugs furnished for turning shanks.

DISCOUNT ..... 50% OFF

"USE-EM-UP"  
DRILL SLEEVES

See that flat?

Fig. 2726

For use with drills having broken or twisted shanks. Grind one side flat and insert in socket.

Size	Hole No.	Outside Fits Socket No.	List Each
1 to 2	1	2	\$1.80
1 to 3	1	3	2.40
1 to 4	1	4	3.00
2 to 3	2	3	2.40
2 to 4	2	4	3.00
3 to 4	3	4	3.00

DISCOUNT ..... 50% OFF

MORSE STEEL SOCKETS  
For Morse Taper Shank Tools

Fig. 201M

Size	Hole, Morse Taper, Number	Outside, Morse Taper, Number	List Each
1 to 2	1	2	\$2.00
1 to 3	1	3	2.50
1 to 4	1	4	3.20
1 to 5	1	5	4.80
2 to 3	2	3	2.50
2 to 4	2	4	3.20
2 to 5	2	5	4.80
3 to 2	3	2	3.20
3 to 3	3	3	3.20
3 to 4	3	4	3.20
3 to 5	3	5	4.80
4 to 3	4	3	4.80
4 to 4	4	4	4.80
4 to 5	4	5	4.80
5 to 4	5	4	12.00
5 to 5	5	5	12.00

DISCOUNT ..... 50% OFF

4 to 6 and 5 to 6. .... 30% OFF

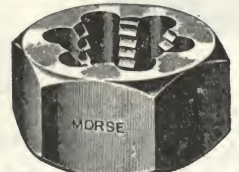
MORSE SOLID HEXAGON  
RE-THREADING DIES

Fig. 1266M

These dies are used only for repair work, for dressing over bruised or rusty threads.

They can be used in bit-brace sockets, ratchet or monkey-wrench.

National (U.S.S.) form of thread furnished unless otherwise specified. Sizes; dimensions; threads not listed; left hand dies; and high speed steel; are special.

## LIST PRICES EACH

Size	Threads per Inch USS	SAE Std.	Die Across Flats	Die Thickness	List Each
$\frac{1}{4}$	20	28	$\frac{19}{32}$	$\frac{1}{4}$	\$ .70
$\frac{3}{8}$	18	24	$\frac{11}{16}$	$\frac{3}{16}$	.80
$\frac{1}{2}$	16	24	$\frac{25}{32}$	$\frac{3}{8}$	.90
$\frac{5}{8}$	14	20	$\frac{7}{8}$	$\frac{1}{2}$	1.00
$\frac{3}{4}$	13	20	$\frac{15}{16}$	$\frac{1}{2}$	1.10
$\frac{7}{8}$	12	18	$\frac{13}{16}$	$\frac{1}{2}$	1.20
$\frac{15}{16}$	11	18	$\frac{11}{16}$	$\frac{1}{2}$	1.40
$\frac{1}{2}$	10	16	$\frac{13}{16}$	$\frac{3}{8}$	1.80
$\frac{3}{4}$	9	14, 18	$\frac{15}{16}$	$\frac{7}{8}$	2.40
1	8	14	$\frac{11}{16}$	1	2.40
$\frac{1 1}{8}$	7	12	2	1	2.80
$\frac{1 1}{4}$	7	12	$\frac{23}{16}$	1	3.20
$\frac{1 1}{2}$	6	12	$\frac{23}{16}$	1	4.00

DISCOUNT ..... 40% OFF

## MORSE THREE-GROOVE AND FOUR-GROOVE DRILLS—High Speed Steel

NOT For Drilling Into Solid Metal. For Enlarging A Hole Previously Drilled, Cored, or Punched. \*Three groove Drills only  $\frac{1}{4}$  to  $\frac{15}{32}$  Inch.\*

Fig. 1450M Three-Groove  
With Morse Taper ShankFig. 1454M Four-Groove  
With Morse Taper ShankFig. 1452M Three-Groove  
With Straight Round ShankFig. 1456M Four-Groove  
With Straight Round Shank

Diam. Inch	Taper1450M1452M	Diam. Inch	Taper1454M1456M	Diam. Inch	Taper1450M1452M	Diam. Inch	Taper1454M1456M
1/4*	1 \$2.75 \$2.75	9/16	2 \$5.10 \$4.80	7/8	3 \$10.00 \$9.30	1-3/16	4 \$18.75 \$17.30
9/32*	1 \$2.85 \$2.85	19/32	2 \$5.35 \$5.35	29/32	3 \$10.50 \$9.75	1-7/32	4 \$19.75 \$18.25
5/16*	1 \$2.95 \$2.95	5/8	2 \$5.60 \$5.60	15/16	3 \$11.00 \$11.00	1-1/4	4 \$21.75 \$20.15
11/32*	1 \$3.05 \$3.05	21/32	2 \$6.10 \$6.10	31/32	3 \$12.00 \$12.00	1-9/32	4 \$23.75 \$23.75
3/8*	1 \$3.25 \$3.25	11/16	2 \$6.60 \$6.60	1	3 \$12.75 \$12.75	1-5/16	4 \$24.75 \$24.75
13/32*	1 \$3.45 \$3.45	23/32	2 \$7.10 \$7.10	1-1/32	3 \$13.50 \$13.50	1-11/32	4 \$25.75 \$25.75
7/16*	1 \$3.65 \$3.65	3/4	2 \$7.60 \$7.60	1-1/16	3 \$14.25 \$14.25	1-3/8	4 \$26.75 \$26.75
15/32*	1 \$3.85 \$3.85	25/32	2 \$8.00 \$8.00	1-3/32	4 \$15.75 \$14.50	1-13/32	4 \$28.00 \$28.00
1/2	2 \$4.30 \$4.05	13/16	3 \$9.00 \$8.35	1-1/8	4 \$16.75 \$15.45	1-7/16	4 \$29.25 \$29.25
17/32	2 \$4.60 \$4.35	27/32	3 \$9.50 \$8.85	1-5/32	4 \$17.75 \$16.40	1-15/32	4 \$30.50 \$30.50

DISCOUNT, High Speed Steel, Specify Style Wanted ..... 50-5% OFF



# MORSE TWIST DRILLS

## MORSE STRAIGHT SHANK DRILLS, JOBBERS' LENGTHS [SHORT SET]



Fig. 330M Carbon Steel  
Fig. 1330M High Speed Steel

Left Hand Drills

DISCOUNT ..... 20% OFF

Fig. 1344M Drills for Brass.

Fig. 1361M Drills for Aluminum or Bakelite.  
Heavy Duty. For Portable Drilling.

USE HIGH SPEED LISTS AND DISCOUNTS.

### LIST PRICES PER DOZEN

Diam-eter, Inches	Whole Length, Inches	Decimal Equiva-lent	List Dozen, Carbon Steel	List Dozen High Speed Steel	Diam-eter, Inches	Whole Length, Inches	Decimal Equiva-lent	List Dozen, Carbon Steel	List Dozen High Speed Steel	Diam-eter, Inches	Whole Length, Inches	Decimal Equiva-lent	List Dozen, Carbon Steel	List Dozen High Speed Steel
1/64	7/8	.0156	\$1.50	\$4.50	3/16	3 1/2	.1875	\$2.25	\$ 4.85	23/64	47/8	.3593	\$ 5.50	\$12.75
1/32	1 1/2	.0312	1.50	3.50	13/64	3 3/8	.2031	2.50	5.25	3/8	5	.375	6.00	13.75
3/64	1 3/4	.0468	1.55	2.40	7/32	3 3/4	.2187	2.75	5.75	25/64	5 1/8	.3906	6.50	15.00
1/16	2 1/2	.0625	1.60	3.00	15/64	3 7/8	.2343	3.00	6.25	13/32	5 1/4	.4062	7.00	16.25
5/64	2 5/8	.0781	1.65	3.10	1/4	4	.25	3.25	6.75	27/64	5 3/8	.4218	7.75	17.50
3/32	2 3/4	.0937	1.70	3.20	17/64	4 1/8	.2656	3.50	7.50	7/16	5 1/2	.4375	8.50	18.75
7/64	2 7/8	.1093	1.75	3.40	9/32	4 1/4	.2812	3.80	8.25	29/64	5 5/8	.4531	9.25	20.00
1/8	3	.125	1.80	3.60	19/64	4 3/8	.2968	4.00	9.00	15/32	5 3/4	.4687	10.00	21.25
5/32	3 1/8	.1406	1.85	3.90	5/16	4 1/2	.3125	4.35	9.75	31/64	5 7/8	.4843	11.00	22.75
3/16	3 1/4	.1562	1.90	4.20	21/64	4 5/8	.3281	4.70	10.75	1/2	6	.5	12.00	24.25
1/4	3 3/8	.1718	2.00	4.50	11/32	4 3/4	.3437	5.05	11.75					

### DISCOUNTS

330M. Carbon Steel, 1/32 to 3/8 Inch.....	(1 to 11)	40% OFF
330M. Carbon Steel, 3/8 to 1 1/2 Inch.....	(1 to 5)	40% OFF
1330M. High Speed Steel, 1/32 to 3/8 Inch.....	(1 to 11)	35% OFF
1330M. High Speed Steel, 3/8 to 1 1/2 Inch.....	(1 to 5)	35% OFF

### BROKEN PACKAGE

### FULL PACKAGE

(12)	45% OFF
(6)	45% OFF
(12)	40% OFF
(6)	40% OFF

## MORSE STRAIGHT SHANK TAPER LENGTH [LONG SET] TWIST DRILLS



Fig. 314M Carbon Steel  
Fig. 1314M High Speed Steel

### LIST PRICES EACH

Diam-eter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, Carbon Steel	List Each, High Speed Steel	Diam-eter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, Carbon Steel	List Each, High Speed Steel	Diam-eter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, Carbon Steel	List Each, High Speed Steel
1/8	5 1/8	2 1/2	\$ .45	\$1.00	35/64	8 1/4	5 3/8	\$1.40	\$3.50	31/32	11	7 3/16	\$3.25	\$ 9.65
9/64	5 3/8	3	.45	1.10	9/16	8 1/4	5 3/8	1.40	3.50	63/64	11	7 3/16	3.50	10.25
5/32	5 3/8	3	.45	1.10	37/64	8 3/4	5 3/4	1.50	4.00	1	11	7 3/16	3.50	10.25
11/64	5 3/4	3 1/2	.50	1.25	19/32	8 3/4	5 3/4	1.50	4.00	1 1/64	11 1/8	7 5/16	3.75	11.00
3/16	5 3/4	3 1/2	.50	1.25	39/64	8 3/4	5 3/4	1.60	4.25	1 1/32	11 1/8	7 5/16	3.75	11.00
13/64	6	4	.55	1.35	5/8	8 3/4	5 3/4	1.60	4.25	13/64	11 1/4	7 3/8	4.00	11.75
7/32	6	4	.55	1.35	47/64	9	5 7/8	1.70	4.75	1 1/16	11 1/4	7 3/8	4.00	11.75
15/64	6 1/8	4	.60	1.40	21/32	9	5 7/8	1.70	4.75	1 1/8	11 1/2	7 5/8	4.25	12.20
1/4	6 1/8	4	.60	1.40	43/64	9 1/4	6	1.80	5.25	13/32	11 1/2	7 5/8	4.25	12.20
17/64	6 1/4	4	.65	1.50	11/16	9 1/4	6	1.80	5.25	1 1/4	11 3/4	7 7/8	4.50	13.15
9/32	6 1/4	4	.65	1.50	45/64	9 1/2	6 3/16	1.90	5.75	1 1/8	11 3/4	7 7/8	4.50	13.15
19/64	6 3/8	4 1/16	.70	1.60	23/32	9 1/2	6 3/16	1.90	5.75	1 3/16	11 3/4	7 7/8	4.50	13.15
5/16	6 3/8	4 1/16	.70	1.60	47/64	9 3/4	6 3/8	2.00	6.25	1 1/2	11 7/8	8	4.75	13.85
21/64	6 1/2	4 1/8	.75	1.70	3/4	9 3/4	6 3/8	2.00	6.25	1 5/8	11 7/8	8	4.75	13.85
13/32	6 1/2	4 1/8	.75	1.70	49/64	9 7/8	6 1/2	2.10	6.50	1 3/4	12	8 1/8	5.00	14.55
25/64	6 3/4	4 3/4	.80	1.90	25/32	9 7/8	6 1/2	2.10	6.50	13/16	12	8 1/8	5.00	14.55
3/8	6 3/4	4 3/4	.80	1.90	51/64	10	6 5/8	2.20	6.75	1 1/2	12 1/8	8 1/8	5.25	15.25
25/64	7	4 3/8	.90	2.10	13/16	10	6 5/8	2.20	6.75	1 5/8	12 1/2	8 1/2	5.50	16.65
13/32	7	4 3/8	.90	2.10	55/64	10	6 5/8	2.40	7.15	1 3/4	12 1/2	8 1/2	5.50	16.65
27/64	7 1/4	4 5/8	1.00	2.30	27/32	10	6 5/8	2.40	7.15	1 3/2	14 3/8	9 1/8	5.75	20.00
7/16	7 1/4	4 5/8	1.00	2.30	55/64	10	6 5/8	2.60	7.50	1 5/16	14 1/4	9 1/4	6.00	20.75
29/64	7 1/2	4 5/8	1.10	2.50	7/8	10	6 5/8	2.60	7.50	1 1/2	14 3/8	9 3/8	6.25	21.50
15/32	7 1/2	4 5/8	1.10	2.50	57/64	10	6 5/8	2.80	7.85	1 3/8	14 1/2	9 1/2	6.50	22.25
31/64	7 3/4	5	1.20	2.75	29/32	10	6 5/8	2.80	7.85	1 13/32	14 3/4	9 1/2	7.00	23.00
1/2	7 3/4	5	1.20	2.75	59/64	10 3/4	7	3.00	8.85	1 7/16	14 3/4	9 5/8	7.50	23.75
33/64	8	5 1/4	1.30	3.05	15/16	10 3/4	7	3.00	8.85	1 15/32	14 7/8	9 3/4	8.00	24.50
1 1/32	8	5 1/4	1.30	3.05	61/64	11	7 3/16	3.25	9.65	1 1/2	15	9 7/8	8.50	25.25

DISCOUNT	Carbon.....	40% OFF
	High Speed .....	50-5% OFF



# MORSE TWIST DRILLS

## MORSE TAPER SHANK TWIST DRILLS—HIGH SPEED STEEL

**Fig. 1302M**  
High Speed  
Steel



Write for Prices of  
Drills with Shanks  
Other than Listed

Diam- eter, Inches	Whole Length, Inches	Twist Cut, Inches	Morse Taper Shank Number	List Each, High Speed Steel	Diam- eter, Inches	Whole Length, Inches	Twist Cut, Inches	Morse Taper Shank Number	List Each, High Speed Steel	Diam- eter, Inches	Whole Length, Inches	Twist Cut, Inches	Morse Taper Shank Number	List Each, High Speed Steel
1/8	5 1/8	1 11/16	1	\$1.00	19/32	8 3/4	4 7/8	2	\$4.00	1 1/16	11 1/4	6 5/8	3	\$ 11.75
9/64	5 3/8	1 15/16	1	1.10	39/64	8 3/4	4 7/8	2	4.25	1 5/64	12 1/2	6 13/16	4	13.25
5/32	5 3/8	1 15/16	1	1.10	5/8	8 3/4	4 7/8	2	4.25	1 3/32	12 1/2	6 13/16	4	13.25
11/64	5 3/4	2 5/16	1	1.25	41/64	9	5 1/8	2	4.75	1 1/4	12 3/4	7 1/16	4	14.25
3/16	5 3/4	2 5/16	1	1.25	21/32	9	5 1/8	2	4.75	1 1/8	12 3/4	7 1/16	4	14.25
13/64	6	2 9/16	1	1.35	43/64	9 1/4	5 5/8	2	5.25	1 3/16	12 7/8	7 3/16	4	15.00
7/32	6	2 9/16	1	1.35	11/16	9 1/4	5 5/8	2	5.25	1 5/32	12 7/8	7 3/16	4	15.00
15/64	6 1/8	2 11/16	1	1.40	45/64	9 1/2	5 5/8	2	5.75	1 11/64	13	7 5/16	4	15.75
1/4	6 1/8	2 11/16	1	1.40	23/32	9 1/2	5 5/8	2	5.75	1 3/8	13	7 5/16	4	15.75
17/64	6 1/4	2 15/16	1	1.50	47/64	9 3/4	5 7/8	2	6.25	1 13/64	13 1/8	7 7/16	4	16.50
9/32	6 1/4	2 15/16	1	1.50	3/4	9 3/4	5 7/8	2	6.25	1 7/32	13 1/8	7 7/16	4	16.50
19/64	6 3/8	3 1/16	1	1.60	49/64	10 1/2	5 3/4	3	6.75	1 15/64	13 1/2	7 13/16	4	18.00
5/16	6 3/8	3 1/16	1	1.60	25/32	9 7/8	6	2	6.50	1 1/4	13 1/2	7 13/16	4	18.00
21/64	6 1/2	3 3/16	1	1.70	51/64	10 3/4	6 1/8	3	6.50	1 17/64	14 1/8	8 7/16	4	20.00
11/32	6 1/2	3 3/16	1	1.70	13/16	10 3/4	6 1/8	3	7.25	1 3/32	14 1/8	8 7/16	4	20.00
23/64	6 3/4	3 7/16	1	1.90	53/64	10 3/4	6 1/8	3	7.25	1 19/64	14 1/4	8 9/16	4	20.75
3/8	6 3/4	3 7/16	1	1.90	27/32	10 3/4	6 1/8	3	7.65	1 15/16	14 1/4	8 9/16	4	20.75
25/64	7	3 11/16	1	2.10	55/64	10 3/4	6 1/8	3	8.05	1 11/32	14 3/8	8 11/16	4	21.50
13/32	7	3 11/16	1	2.10	7/8	10 3/4	6 1/8	3	8.05	1 3/8	14 1/2	8 13/16	4	22.25
7/16	7 1/4	3 15/16	1	2.30	57/64	10 3/4	6 1/8	3	8.45	1 13/32	14 5/8	8 15/16	4	23.00
29/64	7 1/2	4 3/16	1	2.50	29/32	10 3/4	6 1/8	3	8.45	1 17/64	14 3/4	9 1/16	4	23.75
15/32	7 1/2	4 3/16	1	2.50	59/64	10 3/4	6 1/8	3	8.85	1 15/32	14 7/8	9 3/16	4	24.50
31/64	8 1/4	4 3/8	2	2.95	15/16	10 3/4	6 1/8	3	8.85	1 1/2	15	9 5/16	4	25.25
1/2	8 1/4	4 3/8	2	2.95	61/64	11	6 3/8	3	9.65	1 1/4	17 1/8	10 1/8	5	39.00
33/64	8 1/2	4 5/8	2	3.25	31/32	11	6 3/8	3	9.65	2	17 3/8	10 3/8	5	50.00
17/32	8 1/2	4 5/8	2	3.25	63/64	11	6 3/8	3	10.25	2 1/4	17 3/8	10	5	.0046
35/64	8 3/4	4 7/8	2	3.75	1	11	6 3/8	3	10.25	2 1/2	18 3/4	11 1/8	5	91.00
9/16	8 3/4	4 7/8	2	3.75	1 1/64	11 1/8	6 1/2	3	11.00	2 3/4	20 3/8	12 1/2	5	120.50
37/64	8 3/4	4 7/8	2	4.00	1 1/32	11 1/8	6 1/2	3	11.75	3	21 3/4	13 5/8	5	150.00

**DISCOUNT** ..... **50-5% OFF**

## MORSE STRAIGHT SHANK WIRE DRILLS—WIRE SIZES

**Fig. 340M—Carbon Steel**  
**1340M—High Speed Steel**



Fig. 1345M. For Brass.  
Fig. 1362M. For Aluminum  
or Bakelite.  
USE HIGH SPEED LISTS  
AND DISCOUNTS.

No. by Gauge	Decimals of 1 Inch	List Dozen Carbon Steel	List Dozen High Speed Steel	No. by Gauge	Decimals of 1 Inch	List Dozen Carbon Steel	List Dozen High Speed Steel	No. by Gauge	Decimals of 1 Inch	List Dozen Carbon Steel	List Dozen High Speed Steel	No. by Gauge	Decimals of 1 Inch	List Dozen Carbon Steel	List Dozen High Speed Steel
1	.2280	\$2.75	\$6.45	21	.1590	\$1.90	\$4.35	41	.0960	\$1.70	\$2.80	61	.0390	\$1.50	3.50
2	.2210	2.75	6.45	22	.1570	1.90	4.15	42	.0935	1.70	2.75	62	.0380	1.50	3.50
3	.2130	2.75	6.15	23	.1540	1.90	4.05	43	.0890	1.70	2.60	63	.0370	1.50	3.50
4	.2090	2.75	5.95	24	.1520	1.90	4.05	44	.0860	1.70	2.60	64	.0360	1.50	3.50
5	.2055	2.75	5.95	25	.1495	1.90	3.90	45	.0820	1.70	2.60	65	.0350	1.50	3.50
6	.2040	2.50	5.95	26	.1470	1.80	3.90	46	.0810	1.65	2.50	66	.0330	1.50	3.50
7	.2010	2.50	5.45	27	.1440	1.80	3.90	47	.0785	1.65	2.50	67	.0320	1.50	3.50
8	.1990	2.50	5.45	28	.1405	1.80	3.60	48	.0760	1.65	2.50	68	.0310	1.50	3.50
9	.1960	2.50	5.45	29	.1360	1.80	3.60	49	.0730	1.65	2.50	69	.0292	1.50	3.50
10	.1935	2.50	5.25	30	.1285	1.80	3.60	50	.0700	1.65	2.40	70	.0280	1.50	3.50
11	.1910	2.25	5.25	31	.1200	1.75	3.30	51	.0670	1.60	2.40	71	.0260	1.50	4.25
12	.1890	2.25	5.25	32	.1160	1.75	3.30	52	.0635	1.60	2.40	72	.0250	1.50	4.25
13	.1850	2.25	4.85	33	.1130	1.75	3.30	53	.0595	1.60	2.40	73	.0240	1.50	4.25
14	.1820	2.25	4.85	34	.1110	1.75	3.15	54	.0550	1.60	2.40	74	.0225	1.50	4.25
15	.1800	2.25	4.85	35	.1100	1.75	3.15	55	.0520	1.60	2.40	75	.0210	1.50	4.25
16	.1770	2.00	4.65	36	.1065	1.75	3.10	56	.0465	1.55	2.40	76	.0200	1.50	4.25
17	.1730	2.00	4.65	37	.1040	1.75	2.95	57	.0430	1.55	2.40	77	.0180	1.50	4.25
18	.1695	2.00	4.50	38	.1015	1.75	2.95	58	.0420	1.55	2.40	78	.0160	1.50	4.25
19	.1660	2.00	4.35	39	.0995	1.75	2.95	59	.0410	1.55	2.40	79	.0145	1.50	4.25
20	.1610	2.00	4.35	40	.0980	1.75	2.80	60	.0400	1.55	2.40	80	.0135	1.50	4.25

**DISCOUNT**

Carbon Steel, Broken Packages, (1 to 11) .....	40% OFF
Carbon Steel, Full Packages, (12) .....	45% OFF
High Speed Steel, Broken Packages, (1 to 11) .....	35% OFF
High Speed Steel, Full Packages, (12) .....	40% OFF



MORSE TWIST DRILLS

MORSE TAPER SHANK TWIST DRILLS—CARBON STEEL

Fig. 302M  
Carbon Steel  
Taper Shank



Fig. 302M  
Carbon Steel  
Taper Shank

Diam- eter, Inches	Whole Length, Inches	Twist Cut, Inches	Morse Taper Shank Number	List Each, Carbon Steel	Diam- eter, Inches	Whole Length, Inches	Twist Cut, Inches	Morse Taper Shank Number	List Each, Carbon Steel	Diam- eter, Inches	Whole Length, Inches	Twist Cut, Inches	Morse Taper Shank Number	List Each, Carbon Steel
1/8	5 1/8	1 11/16	1	\$0.45	47/64	9 3/4	5 7/8	2	\$2.00	1 1/2	14 3/8	8 11/16	4	\$ 6.25
9/64	5 3/8	1 15/16	1	.45	3/4	9 3/4	5 7/8	2	2.00	1 11/32	14 3/8	8 11/16	4	6.25
5/32	5 3/8	1 15/16	1	.45	49/64	9 7/8	6	2	2.10	1 23/64	14 1/2	8 13/16	4	6.50
11/64	5 3/4	2 5/16	1	.50	25/32	9 7/8	6	2	2.10	1 3/8	14 1/2	8 13/16	4	6.50
3/16	5 3/4	2 5/16	1	.50	51/64	10	6 1/8	2	2.20	1 25/64	14 5/8	8 15/16	4	7.00
13/64	6	2 9/16	1	.55	13/16	10	6 1/8	2	2.20	1 13/32	14 5/8	8 15/16	4	7.00
7/32	6	2 9/16	1	.55	53/64	10	6 1/8	2	2.40	1 27/64	14 3/4	9 1/16	4	7.50
15/64	6 1/8	2 11/16	1	.60	27/32	10	6 1/8	2	2.40	1 7/16	14 3/4	9 1/16	4	7.50
1/4	6 1/8	2 11/16	1	.60	55/64	10	6 1/8	2	2.60	1 29/64	14 7/8	9 3/16	4	8.00
17/64	6 1/4	2 15/16	1	.65	7/8	10	6 1/8	2	2.60	1 15/32	14 7/8	9 3/16	4	8.00
9/32	6 1/4	2 15/16	1	.65	57/64	10	6 1/8	2	2.80	1 31/64	15	9 5/16	4	8.50
19/64	6 3/8	3 1/16	1	.70	29/32	10	6 1/8	2	2.80	1 1/2	15	9 5/16	4	8.50
5/16	6 3/8	3 1/16	1	.70						1 33/64	15	9 5/16	4	9.00
21/64	6 3/2	3 3/16	1	.75	59/64	10 3/4	6 1/8	3	3.00	1 17/32	15	9 5/16	4	9.00
11/32	6 3/2	3 3/16	1	.75	15/16	10 3/4	6 1/8	3	3.00	1 35/64	15 1/4	9 9/16	4	9.50
23/64	6 3/4	3 7/16	1	.80	61/64	11	6 3/8	3	3.25	1 9/16	15 1/4	9 9/16	4	9.50
3/8	6 3/4	3 7/16	1	.80	31/32	11	6 3/8	3	3.25	1 37/64	15 1/2	9 13/16	4	10.00
25/64	7	3 11/16	1	.90	63/64	11	6 3/8	3	3.50	1 19/32	15 1/2	9 13/16	4	10.00
13/32	7	3 11/16	1	.90		11	6 3/8	3	3.50	1 39/64	15 5/8	9 15/16	4	10.50
27/64	7 1/4	3 15/16	1	1.00	1 1/64	11 1/8	6 1/2	3	3.75	1 5/8	15 5/8	9 15/16	4	10.50
7/16	7 1/4	3 15/16	1	1.00	1 1/32	11 1/8	6 1/2	3	3.75	1 41/64	15 3/4	10 1/16	4	11.00
29/64	7 1/2	4 3/16	1	1.10	1 3/64	11 1/4	6 5/8	3	4.00	1 21/32	15 3/4	10 1/16	4	11.00
15/32	7 1/2	4 3/16	1	1.10	1 1/16	11 1/4	6 5/8	3	4.00	1 43/64	15 3/4	10 1/16	4	11.50
31/64	7 3/4	4 7/16	1	1.20	1 5/64	11 1/2	6 7/8	3	4.25	1 11/16	15 3/4	10 1/16	4	11.50
1/2	7 3/4	4 7/16	1	1.20	1 13/32	11 1/2	6 7/8	3	4.25	1 45/64	15 3/4	9 5/8	4	12.00
33/64	8	4 11/16	1	1.30	1 7/64	11 3/4	7 1/8	3	4.50	1 23/32	15 3/4	9 5/8	4	12.00
17/32	8	4 11/16	1	1.30	1 1/8	11 3/4	7 1/8	3	4.50	1 47/64	16 1/4	10 1/8	4	12.50
35/64	8 1/4	4 15/16	1	1.40	1 9/64	11 7/8	7 1/4	3	4.75	1 3/4	16 1/4	10 1/8	4	12.50
9/16	8 1/4	4 15/16	1	1.40	1 5/32	11 7/8	7 1/4	3	4.75	1 25/32	16 1/4	10 1/8	4	13.25
					1 11/64	12	7 3/8	3	5.00	1 13/16	16 1/4	10 1/8	4	14.00
37/64	8 3/4	4 7/8	2	1.50	1 13/16	12	7 3/8	3	5.00	1 27/32	16 1/4	10 1/8	4	14.75
19/32	8 3/4	4 7/8	2	1.50	1 15/64	12 1/8	7 1/2	3	5.25	1 7/8	16 1/2	10 3/16	4	15.50
39/64	8 3/4	4 7/8	2	1.60	1 7/32	12 1/8	7 1/2	3	5.25	1 29/32	16 1/2	10 5/16	4	16.25
5/8	8 3/4	4 7/8	2	1.60	1 15/64	12 1/2	7 7/8	3	5.50	1 15/16	16 5/8	10 5/16	4	17.00
41/64	9	5 1/8	2	1.70	1 1/4	12 1/2	7 7/8	3	5.50	1 31/32	16 5/8	10 5/16	4	17.75
21/32	9	5 1/8	2	1.70						2	16 5/8	10 5/16	4	18.50
43/64	9 1/4	5 5/8	2	1.80	1 17/64	14 1/8	8 7/16	4	5.75	2 1/4	17 3/8	10	5	24.50
11/16	9 1/4	5 5/8	2	1.80	1 9/32	14 7/8	8 7/16	4	5.75	2 1/2	18 3/4	11 1/8	5	30.50
45/64	9 1/2	5 5/8	2	1.90	1 19/64	14 3/4	8 9/16	4	6.00	2 3/4	20 3/8	12 1/2	5	38.00
23/32	9 1/2	5 5/8	2	1.90	1 5/16	14 3/4	8 9/16	4	6.00	3	21 3/4	13 5/8	5	48.00

DISCOUNT, Carbon Steel..... 40% OFF

MORSE STRAIGHT SHANK DRILLS—LETTER SIZES

Fig. 332M  
Carbon Steel



Fig. 1332M  
High Speed Steel

Size By Gauge	Decimal Equiva- lent	Whole Length, Inches	List Dozen Carbon Steel	List Dozen High Speed Steel	Size By Gauge	Decimal Equiva- lent	Whole Length, Inches	List Dozen Carbon Steel	List Dozen High Speed Steel	Size By Gauge	Decimal Equiva- lent	Whole Length, Inches	List Dozen Carbon Steel	List Dozen High Speed Steel
A-15/64	.234	3 7/8	\$3.00	\$6.25	J	.277	4 1/8	\$3.70	\$ 8.00	S	.348	4 7/8	\$5.15	\$12.75
B	.238	3 7/8	3.05	6.55	K-9/32	.281	4 1/4	3.80	8.25	T-23/32	.358	4 7/8	5.50	12.75
C	.242	3 7/8	3.10	6.55	L	.290	4 1/4	3.90	8.75	U	.368	5	6.00	13.75
D	.246	4	3.15	6.75	M-19/64	.295	4 3/8	4.00	9.00	V-3/8	.377	5	6.00	14.65
E-1/4	.250	4	3.25	6.75	N	.302	4 3/8	4.25	9.50	W-25/64	.386	5 1/8	6.50	15.00
F	.257	4 1/8	3.35	7.50	O-5/16	.316	4 1/2	4.40	10.45	X	.397	5 1/8	6.75	15.85
G	.261	4 1/8	3.45	7.50	P-21/64	.323	4 5/8	4.60	10.75	Y-13/32	.404	5 1/4	7.00	15.85
H-17/64	.266	4 1/8	3.50	8.00	Q	.332	4 3/4	4.75	11.75	Z	.413	5 1/4	7.25	17.10
I	.272	4 1/8	3.65	8.00	R-11/32	.339	4 3/4	5.05	11.75					

DISCOUNT { Carbon Steel ..... 45% OFF  
High Speed Steel ..... 40% OFF



# MORSE DRILLS AND COUNTERSINKS

## MORSE HALF INCH ROUND SHANK SHORT LENGTH PRENTICE DRILLS

For Half Inch or Larger Size Electric Drills.



Fig. 1412M High Speed Steel

Style 1. Round shanks, 1/2 inch diameter, 2 1/2 inches long. Also known as Silver and Deming drills.

Diameter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, High Speed Steel	Diameter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, High Speed Steel
1/8	4 7/8	2 3/16	\$1.40	1 1/2	6	2 3/4	\$4.25
5/32	5 1/8	2 7/16	1.50	5/8	6	2 3/4	4.50
3/16	5 1/2	2 13/16	1.60	7/8	6	2 3/4	4.75
7/32	5 5/8	3	1.75	1 1/16	6	2 3/4	5.00
1/4	6	3	1.90	1 1/8	6	2 3/4	5.25
9/32	6	2 3/4	2.05	3/4	6	2 3/4	5.50
5/16	6	2 3/4	2.20	25/32	6	2 3/4	5.75
11/32	6	2 3/4	2.35	1 1/16	6	2 3/4	6.00
3/8	6	2 3/4	2.50	27/32	6	2 3/4	6.25
13/32	6	2 3/4	2.75	7/8	6	2 3/4	6.50
7/16	6	2 3/4	3.00	29/32	6	2 3/4	6.75
15/32	6	2 3/4	3.25	1 1/8	6	2 3/4	7.25
1/2	6	2 3/4	3.50	31/32	6	2 3/4	7.75
17/32	6	2 3/4	3.75	1	6	2 3/4	8.50
9/16	6	2 3/4	4.00				

DISCOUNT, High Speed Steel . . . . . 50-5% OFF

## MORSE HALF INCH FLATTED SHANK OR ROUND SHANK SHORT LENGTH PRENTICE DRILLS



Fig. 412M Carbon Steel

Style 1. Round shank, 1/2 inch diameter, 2-1/2 inches long. See Fig. 1412M for style.

Style 2. Flatted shank, 1/2 inch diameter, 2 1/2 inches long. (As illustrated).

Diameter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, Carbon Steel	Diameter, Inches	Whole Length, Inches	Twist Cut, Inches	List Each, Carbon Steel
1/8	4 7/8	2 3/16	\$0.45	1 1/2	6	2 3/4	\$1.20
5/32	5 1/8	2 7/16	.45	5/8	6	2 3/4	1.30
3/16	5 1/2	2 13/16	.50	7/8	6	2 3/4	1.40
7/32	5 5/8	3	.55	1 1/16	6	2 3/4	1.50
1/4	6	3	.60	1 1/8	6	2 3/4	1.60
9/32	6	2 3/4	.65	3/4	6	2 3/4	1.70
5/16	6	2 3/4	.70	25/32	6	2 3/4	1.80
11/32	6	2 3/4	.75	13/16	6	2 3/4	1.90
3/8	6	2 3/4	.80	27/32	6	2 3/4	2.00
13/32	6	2 3/4	.85	7/8	6	2 3/4	2.10
7/16	6	2 3/4	.90	29/32	6	2 3/4	2.20
15/32	6	2 3/4	.95	1 1/8	6	2 3/4	2.30
1/2	6	2 3/4	1.00	31/32	6	2 3/4	2.40
17/32	6	2 3/4	1.05	1	6	2 3/4	2.50
9/16	6	2 3/4	1.10				

DISCOUNT, Carbon Steel . . . . . 40% OFF

## THREE GROOVE COUNTERSINKS

Included angle of cutting point is 82°. Countersinks with other angles made to order at special prices.



Fig. 491M Carbon Straight Shank 1/2 by 2 inches  
Fig. 1491M High Speed Steel



Fig. 490M Carbon Steel Bit Stock Countersink

Diameter, Inch	List 491M	List 1491M	491M Dimensions Whole Length	Twist Cut	Length, Body	490M Dimensions Whole Length	Twist Cut	Length, Body
3/8	\$0.50	\$2.00	4 3/8	2 1/8	2 3/8	4 1/4	2 1/4	3
1/2	\$0.60	\$2.10	4 1/2	2 1/4	2 1/2	4 1/4	1 15/16	2 1/2
5/8	\$0.75	\$2.60	4 5/8	2 3/8	2 5/8	4 1/4	1 13/16	2 1/2
3/4	\$0.90	\$3.10	4 3/4	2 1/2	2 3/4	5	2 1/2	3 1/4
7/8	\$1.05	\$3.70	4 7/8	2 5/8	2 7/8	5	2 1/2	3 1/4
1	\$1.20	\$4.60	5	2 3/4	3	5	2 1/2	3 1/4

DISCOUNT { Carbon Steel . . . . . LIST NET  
{ High Speed Steel . . . . . 5% OFF

## MORSE DRILLS AND COUNTERSINKS COMBINED



Fig. 495MT Carbon Steel Fig. 1495M High Speed Steel

Included Angle, 60°. Other angles made to order at special prices.

### LIST PRICES PER DOZEN

Size	Diameter of Drill	Diameter of Body	Decimal Equivalent of Drill	Carbon Steel	High Speed Steel
A1	3/64	1/8	.043	\$2.50	\$ 3.00
C2	1/16	13/64	.0625	3.00	8.00
D1	5/64	15/64	.073	3.25	8.00
E1	3/32	3/10	.0938	3.50	8.00
E2	1/8	3/10	.125	3.50	8.00
F1	5/32	7/16	.1563	4.50	12.00
F2	3/16	7/16	.1875	4.50	12.00

### DISCOUNTS

Carbon Steel, Broken Package, 1 to 11 . . . LIST NET

Carbon Steel, Full Package, 12 . . . . . 10% OFF

High Speed Steel, Broken Pkg., 1 to 11 . . . LIST NET

High Speed Steel, Full Package, 12 . . . . . 10% OFF

## COMBINED DRILL AND COUNTERSINK SET

Set No. 50M

8 pieces combined drill and countersink, sizes A1, C2, D1, E1, E2, F1, F2. Carbon steel fig. 495M.

LIST PER SET, \$2.80

DISCOUNT . . . . . 10% OFF

## MORSE CENTER REAMERS

INCLUDED ANGLE 60°



Style No. 1

Style No. 2

Fig. 750M Carbon Steel Fig. 1750M High Speed Steel  
Style 2 Carbon Steel also furnished with included angle of 82 degrees at regular prices. Style 2 High Speed Steel also furnished with included angle of 82 degrees at regular prices.

Size Cut, Inches	Whole Length, Inches	Diam. Shank, Inches	Length Shank, Inches	Style 1 List Each, Carbon Steel	Style 2 List Each, Carbon Steel	Style 2 List Each, High Speed Steel
1/4	1 1/2	3/16	3/4	\$ .25	\$ .40	\$1.00
3/8	1 3/4	1/4	7/8	.30	.45	\$1.15
1/2	2	3/8	1	.35	.55	\$1.40
5/8	2 1/4	3/8	1	.60	.70	\$1.75
3/4	2 5/8	1/2	1 1/4	.80	.85	\$2.15

CARBON . . . LIST NET HIGHSPEED . . 20% OFF



# STRAIGHT SHANK DRILL SETS

## MORSE STRAIGHT SHANK DRILL SETS—In Metal Folding Stand

Set No. 5B—Straight shank drills jobbers' lengths. Sizes 1/16 to 1/2 in. by 64ths.

Carbon Steel, No. 330M ..... LIST SET, \$16.00

High Speed Steel, No. 1330M ..... LIST SET, \$27.65

Set No. 7B—Straight shank drills. Wire sizes, Nos. 1 to 60 and (No. 330) Jobbers' lengths, sizes 1/4 to 3/8 in. by 32nds.

Carbon Steel, Nos. 340M & 330M ..... LIST SET, \$16.75

High Speed Steel, Nos. 1340M & 1330M ..... LIST SET, \$27.15

Set No. 8B—Straight shank drills wire sizes. Nos. 1 to 60.

Carbon Steel, No. 340M ..... LIST SET, \$14.75

High Speed Steel, No. 1340M ..... LIST SET, \$21.75

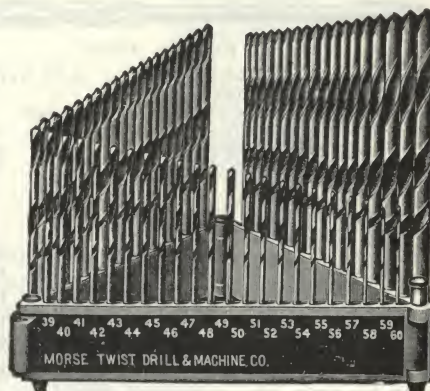
DISCOUNT { Set With Stand, Carbon Steel ..... 45% OFF  
Set With Stand, High Speed Steel ..... 40% OFF

### METAL STAND ONLY

Without Drills

LIST EACH ..... \$3.50

DISCOUNT ..... 25% OFF



## MORSE STRAIGHT SHANK DRILL SETS—On Wood Blocks

### CARBON STEEL—LIST SET

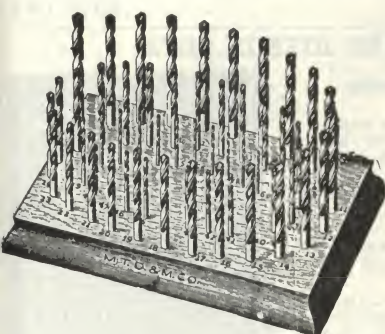
Set No.	Number of Straight Shank Drills	Sizes	By	With Wood Block	Without Wood Block	Wood Block Only
5M	330M Jobbers Lengths	1/16 to 1/2	64ths	\$15.00	\$12.50	\$2.50
6M	330M Jobbers Lengths	1/16 to 1/2	32nds	9.50	7.00	2.50
8M	340M Wire Sizes	1 to 60	.....	13.35	10.85	2.50
15M	332M Letter Sizes	A to Z	.....	13.50	11.00	2.50

DISCOUNT, Carbon Steel Drills ..... 45% OFF

### HIGH SPEED STEEL—LIST SET

Set No.	Number of Straight Shank Drills	Sizes	By	With Wood Block	Without Wood Block	Wood Block Only
5H	1330M Jobbers Lengths	1/16 to 1/2	64ths	\$26.82	\$24.75	\$2.08
8H	1340M Wire Sizes	1 to 60	.....	20.93	18.85	2.08
15H	1332M Letter Sizes	A to Z	.....	24.58	22.50	2.08

DISCOUNT, High Speed Steel ..... 40% OFF



## MORSE STRAIGHT SHANK DRILL SETS—In Indexed Cases

Drills in Indexed Case are contained in holes arranged in concentric circles in the block. Over them is a swinging cover with holes to match each circle. Swinging cover may be moved by knob so that its holes will register with holes in outer cover or cap. Around edge of cap are stamped sizes of drills. Cap is turned to bring any size in line with an index mark and by inverting case the selected drill will drop out.

Set	Steel	Drills No.	Sizes	By	LIST SET
5A	Carbon	330M Jobbers Lengths	1/16 to 1/2	64ths	\$16.00
5AHS	High Speed	1330M Jobbers Lengths	1/16 to 1/2	64ths	\$27.65
8A	Carbon	340M Wire Drills	Nos. 1 to 60	.....	\$14.35
8AHS	High Speed	1340M Wire Drills	Nos. 1 to 60	.....	\$21.75

DISCOUNT { Carbon Steel ..... 40% OFF  
High Speed Steel ..... 45% OFF

Indexed Case Only. For 5A or 8A Sets ..... ★ Net Each, \$2.60



## HUOT STEEL DRILL INDEX

### A DRILL STAND, GAUGE, AND CONTAINER. ALL IN ONE

With or Without Morse Straight Shank Carbon Steel Drills.

No hunting for drills. Holes are individually drilled, not die-cast. Panels for drills fold into box like pages of a book. Drills will not fall out of place even though shortened by breakage or sharpening. Takes very little room in a tool kit or work bench drawer. Cadmium plated. Tap drill sizes given on large cases.

### ★NET EACH INDEX

Set No.	Number of Straight Shank Drills	Sizes	By	Carbon Index With Drills	H. S. Index With Drills	Index Without Drills
13	330M Jobbers Lengths	1/16 to 1/4	64ths	\$2.30	\$3.85	\$1.00
29	330M Jobbers Lengths	1/16 to 1/2	64ths	\$9.85	\$17.85	\$3.00
60	340M Wire Sizes	1 to 60	.....	\$8.45	\$13.80	\$2.50

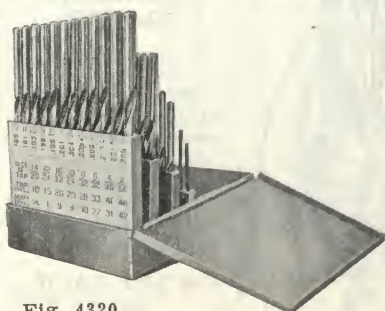


Fig. 4320







**Carbon...LIST NET**  
**H. S. ....30% OFF**

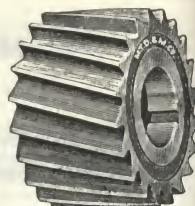




## MORSE MILLING CUTTERS

Carbon, No. 830M  
High Speed, No. 1830M

Cutters of less than  $\frac{3}{4}$  inch face have straight teeth. Cutters of  $\frac{3}{4}$  inch face and over have spiral teeth. Cutters varying from the following list are made to order, of any required size at special prices.



### Straight Teeth

Diameter, Cutter, Inches	Width of Face, Inches	Diameter of Hole, Inches	List Each, Carbon	List Each, High Speed
2 1/4	1 1/2	7/8	\$2.30	\$ 4.50
2 1/4	1	7/8	3.00	6.00
2 1/2	3/16	1	1.60	3.10
2 1/2	3/4	1	2.10	4.10
2 1/2	5/16	1	2.20	4.30
2 1/2	3/8	1	2.30	4.60
2 1/2	7/16	1	2.50	4.90
2 1/2	1/2	1	2.60	5.10
2 1/2	5/8	1	2.80	5.60
2 1/2	3/4	1	3.00	6.00
2 1/2	1	1	3.50	6.90
2 1/2	1 1/2	1	4.30	8.60
2 1/2	2	1	5.20	10.30
2 1/2	2 1/2	1	6.10	12.10

### LIST PRICES EACH

Diameter, Cutter, Inches	Width of Face, Inches	Diameter of Hole, Inches	List Each, Carbon	List Each, High Speed
2 1/2	3	1	\$6.90	\$13.70
3	3/16	1	1.90	3.80
3	1/4	1	2.50	5.00
3	5/16	1	2.70	5.40
3	3/8	1-1/4	2.90	5.70
3	7/16	1 1/4	3.00	6.00
3	1/2	1 1/4	3.20	6.40
3	5/8	1 1/4	3.50	6.90
3	3/4	1 1/4	3.80	7.50
3	7/8	1 1/4	4.10	8.10
3	1	1 1/4	4.40	8.70
3	1 1/4	1 1/4	5.00	9.90
3	1 1/2	1 1/4	5.50	11.00

### Spiral Teeth

Diameter, Cutter, Inches	Width of Face, Inches	Diameter of Hole, Inches	List Each, Carbon	List Each, High Speed
3	2	1 1/4	\$ 6.70	\$13.40
3	3	1 1/4	9.10	18.10
4	1/4	1-1/4	3.60	7.10
4	5/16	1-1/4	3.90	7.70
4	3/8	1-1/4	4.10	8.20
4	1/2	1 1/4	4.70	9.30
4	5/8	1 1/4	5.10	10.20
4	3/4	1 1/4	5.60	11.20
4	1	1 1/4	6.60	13.10
4	1 1/2	1 1/4	8.60	17.10
4	2	1 1/4	10.50	21.00
4	3	1 1/4	14.50	28.90
4	4	1 1/4	18.40	36.80

### DISCOUNT

{ Carbon ..... LIST NET  
{ High Speed ..... 30% OFF

## MORSE SIDE MILLING CUTTERS

Diameter, Cutter, Inches	Width of Face, Inches	Diameter of Hole, Inches	List Each, Carbon	List Each, High Speed
2	3/16	1/2-5/8	\$2.10	\$ 4.20
2	1/4	1/2-5/8	2.20	4.40
2	3/8	1/2-5/8	2.40	4.80
2 1/2	1/4	7/8	2.70	5.40
2 1/2	5/16	7/8	2.90	5.70
2 1/2	3/8	7/8	3.00	6.00
2 1/2	1/2	7/8	3.30	6.60
3	1/4	1	3.30	6.50
3	5/16	1	3.50	6.90
3	3/8	1	3.60	7.20
3	7/16	1	3.80	7.60
3	1/2	1	4.00	8.00
4	1/4	1	4.50	9.00
4	3/8	1	5.10	10.10
4	1/2	1-1/4	5.70	11.30

Diameter, Cutter, Inches	Width of Face, Inches	Diameter of Hole, Inches	List Each, Carbon	List Each, High Speed
4	5/8	1-1/4	\$ 6.20	\$12.30
4	3/4	1-1/4	6.70	13.30
4	7/8	1-1/4	7.20	14.30
5	1/2	1-1/4	7.60	15.10
5	5/8	1-1/4	8.40	16.70
5	3/4	1-1/4	9.10	18.20
5	1	1 1/4	10.70	21.30
6	1/2	1-1/4	9.90	19.70
6	5/8	1 1/4	10.90	21.80
6	3/4	1-1/4	12.00	24.00
6	1	1 1/4	14.20	28.40
7	3/4	1 1/4	17.20	34.40
7	1	1 1/4	20.20	40.30
8	3/4	1 1/4	22.90	45.70
8	1	1 1/4	26.70	53.40

Fig. 833M  
Carbon  
Steel

Fig. 1833M  
High  
Speed  
Steel



Dimensions not listed are special and subject to special prices.

These cutters are often used in pairs for sizing nuts, bolt heads, etc., and are then called "Straddle Mills." They have teeth upon both sides and edges.

### DISCOUNT

{ Carbon Cutters ..... LIST NET  
{ High Speed Cutters ..... 30% OFF

## MORSE METAL-SLITTING SAWS



Fig. 841M. Carbon Steel  
Fig. 1841M. High Speed Steel

Holes are ground to standard size. Sides are ground with proper clearance to allow cutting of deep slots. Dimensions not listed are special and are subject to special prices.

Diameter, Cutter, Inches	Width of Face, Inches	Diameter of Hole, Inches	List Each, Carbon	List Each, High Speed
2 1/2	1/32	7/8	\$1.40	\$2.80
2 1/2	3/64	7/8	1.40	2.80
2 1/2	1/16	7/8	1.40	2.80
2 1/2	3/32	7/8	1.40	2.80
2 1/2	1/8	7/8	1.50	2.90
3	1/32	1	1.70	3.30
3	3/64	1	1.70	3.30
3	1/16	1	1.70	3.40
3	3/32	1	1.70	3.40
3	1/8	1	1.80	3.50
3	5/32	1	1.90	3.70
4	1/32	1	2.20	4.30
4	3/64	1	2.20	4.40
4	1/16	1	2.30	4.50
4	3/32	1	2.40	4.70
4	1/8	1	2.50	5.00
4	5/32	1	2.60	5.20
4	3/16	1	2.80	5.50
5	1/16	1	2.90	5.80
5	3/32	1	3.20	6.30
5	1/8	1	3.30	6.60
5	5/32	1 1/4	3.30	6.60
5	3/16	1	3.50	7.00
5	1/2	1	3.70	7.40
6	1/16	1	3.70	7.30
6	3/32	1	4.20	8.40
6	1/8	1-1/4	4.30	8.60
6	3/16	1-1/4	5.20	10.40
8	1/8	1-1/4	8.80	17.50
8	3/16	1 1/4	9.90	19.80

### DISCOUNT

{ Carbon ..... LIST NET  
{ High Speed ..... 40% OFF



# MORSE INVOLUTE GEAR CUTTERS

ALL GEARS OF SAME PITCH CUT WITH THESE CUTTERS WILL INTERCHANGE

To cut a set of interchangeable wheels with theoretical accuracy, as many cutters would be required as there are different wheels in the set, for the reason that the shape of the teeth should vary with every change in the number of teeth in the wheels. As this change of form is slight and becomes less with each increase in the number of teeth, a set of wheels ranging from a pinion of twelve teeth to a rack can be cut with sufficient accuracy for most purposes by the use of eight cutters, as follows:—

No. 1 will cut gears from 135 teeth to a rack.	
No. 2 will cut gears from 55 teeth to 134 teeth.	
No. 3 will cut gears from 35 teeth to 54 teeth.	
No. 4 will cut gears from 26 teeth to 34 teeth.	
No. 5 will cut gears from 21 teeth to 25 teeth.	
No. 6 will cut gears from 17 teeth to 20 teeth.	
No. 7 will cut gears from 14 teeth to 16 teeth.	
No. 8 will cut gears from 12 teeth to 13 teeth.	

## WITH STANDARD HOLE

Fig. 940M. Carbon Steel

Fig. 1940M. High Speed Steel

Di- ame- tral Pitch	Cut- ter Diam. Inch	Hole Diam. Inch	Carbon List Each	H. S. List Each
1 3/4	6 1/2	1 3/4	\$30.20	\$60.40
2	5 3/4	1 1/2	22.30	44.50
2 1/2	5 3/4	1 1/2	20.00	40.00
3	4 3/4	1 1/4	12.60	25.10
4	4 1/4	1 1/4	9.60	19.20
5	3 3/4	1 1/4	7.80	15.50
6	3 3/8	1	6.20	12.30
7	2 7/8	1	5.40	10.70
8	2 7/8	1	5.10	10.20
9	2 3/4	1	4.50	9.00
10	2 3/8	7/8	4.10	8.20
11	2 3/8	7/8	4.00	7.90
12	2 1/4	7/8	3.60	7.20
14	2 1/8	7/8	3.50	6.90
16	2 1/8	7/8	3.50	6.90
18	2	7/8	3.10	6.20
20	2	7/8	3.10	6.20
22	2	7/8	3.10	6.20
24	1 3/4	7/8	3.00	6.00
26	1 3/4	7/8	2.90	5.80
28	1 3/4	7/8	2.90	5.80
30	1 3/4	7/8	2.90	5.80

## WITH 1 INCH HOLE

Fig. 942M. Carbon Steel

Fig. 1942M. High Speed Steel

Di- ame- tral Pitch	Cut- ter Diam. Inch	Hole Diam. Inch	Carbon List Each	H. S. List Each
4	3 5/8	1	\$8.20	\$16.40
5	3 3/8	1	7.20	14.30
10	2 3/4	1	4.50	9.00
11	2 5/8	1	4.30	8.60
12	2 5/8	1	4.30	8.60
14	2 1/2	1	3.80	7.60
16	2 1/2	1	3.80	7.60
18	2 3/8	1	3.80	7.60
20	2 3/8	1	3.80	7.60
22	2 1/4	1	3.50	6.90
24	2 1/4	1	3.50	6.90

## WITH 1 1/4 INCH HOLE

Fig. 943M. Carbon Steel

Fig. 1943M. High Speed Steel

Di- ame- tral Pitch	Cut- ter Diam. Inch	Hole Diam. Inch	Carbon List Each	H. S. List Each
6	3 1/2	1 1/4	6.70	13.40
7	3 3/8	1 1/4	6.30	12.60
8	3 3/4	1 1/4	5.60	11.10
9	3 3/8	1 1/4	5.40	11.70
10	3	1 1/4	4.90	9.80
12	2 7/8	1 1/4	4.70	9.40

## DISCOUNT

Carbon	.....	LIST NET
High Speed	.....	30% OFF

# MORSE SCREW SLOTTING CUTTERS

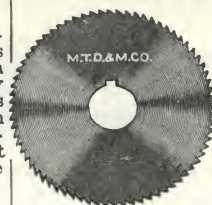


Fig. 845M  
Carbon Steel

Fig. 1845M  
High Speed  
Steel

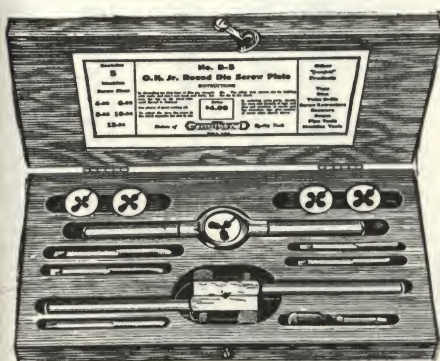
Diameter of hole, 1 inch. Diameter of cutter, 2 3/4 inches.

Number of Gauge	Thickness in Decimals of 1 Inch	List Each Carbon Steel	List Each High Speed Steel
5	.182	\$1.15	.....
6	.162	\$0.95	\$3.20
7	.144	\$0.85	\$3.00
8	.128	\$0.70	\$2.75
9	.114	\$0.65	\$2.50
10	.102	\$0.60	\$2.30
11	.091	\$0.55	\$2.05
12	.081	\$0.55	\$1.90
13	.072	\$0.55	\$1.90
14	.064	\$0.55	\$1.80
15	.057	\$0.50	\$1.70
16	.051	\$0.50	\$1.60
17	.045	\$0.35	\$1.55
18	.040	\$0.35	\$1.50
19	.036	\$0.35	\$1.50
20	.032	\$0.35	\$1.50
21	.028	\$0.30	\$1.50
22	.025	\$0.30	\$1.50
23	.023	\$0.30	\$1.50
24	.020	\$0.30	\$1.50
25	.018	\$0.30	.....
26	.016	\$0.30	.....
27	.014	\$0.30	.....
28	.013	\$0.30	.....
30	.010	\$0.30	.....
32	.008	\$0.30	.....
34	.006	\$0.30	.....

## DISCOUNT

Carbon Steel	.....	LIST NET
High Speed Steel	.....	40% OFF

# GREENFIELD 'O. K. JR.' ROUND DIE SCREW PLATES



Handy for small work of all kinds. High quality tools that are low priced because of the simpler construction of the OK Jr. Dies. The round split adjustable die is held and adjusted by three tapered screws in the stock. One OK Jr. die and one OK Jr. tap, one small screw is furnished for each cutting size. One No. 3 tap wrench. Each set is packed in a neat hardwood box.



## MACHINE SCREW SIZES

MACHINE SCREW SET 4465. Mfrs. B5. Five 13/16 inch diameter dies and five taps: 4-36; 6-32; 8-32; 10-24; and 12-24. 6-1/4 inch stock. Net weight, 1-3/4 pounds.

★ NET EACH SET, \$3.40

Extra 13/16 Inch Dies ★ NET, \$0.50  
MACHINE SCREW SET 5202. Mfrs. B7. Seven 13/16 inch diameter dies and seven taps: 4-36; 6-32; 8-32; 10-24; 12-24; and 1/4-20. 6-1/4 inch stock. Net weight, 2 pounds.

★ NET EACH SET, \$4.25

Extra 13/16 Inch Dies ★ NET, \$0.50

## SMALL FRACTIONAL SIZES

SMALL FRACTIONAL SET 5203. Mfrs. BB5. Five 13/16 inch diameter dies and five taps: 1/8-40; 5/32-36; 3/16-24; 7/32-24; and 1/4-20. 6-1/4 inch stock. 1-3/4 pounds.

★ NET EACH, \$3.40

Extra 13/16 Inch Dies ★ NET, \$0.50  
SMALL FRACTIONAL SET 5204. Mfrs. C7. Seven 1 inch diameter dies and seven taps: 1/8-40; 3/16-24; 1/4-20; 5/16-18; 3/8-16; 7/16-14; and 1/2-13. 9 inch stock. 2-3/4 pounds.

★ NET EACH, \$5.50

Extra 1 Inch Dies ★ NET, \$0.60

## ELEVEN AUTOMOBILE SIZES

AUTOMOBILE COMBINATION SET 4466. Mfrs. 3100. With NC, NF, and Pipe Threads. For automobile and general repair work. Eleven 1 inch diameter dies and eleven taps: NC1/4-20; NC5/16-18; NC3/8-16; NC7/16-14; NC1/2-13; NF1/4-28; NF5/16-24; NF3/8-24; NF7/16-20; NF1/2-20; and PIPE 1/8 inch. 9 inch stock. Bit brace die holder. Net weight, 4 pounds.

★ NET EACH, \$6.40

Extra 1 Inch Dies.

★ NET EACH, \$0.60



## END MILLS—Spiral Flutes

### With Browne & Sharpe Taper Shanks

#### LEFT HAND MILL

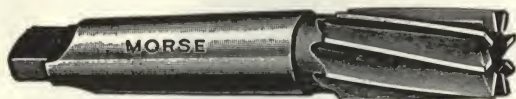


Fig. No. 908M, Carbon Steel  
Fig. No. 1908M, High Speed Steel

In ordering state whether right or left hand is wanted  
Right Hand Mills have a right hand spiral. Left Hand Mills have a left hand spiral. Mills with No. 5 Shank regularly furnished without tang. End Mills with No. 9 Shank are furnished with tang end or with tapped hole for drawback spindle. Sizes and dimensions not listed are special.

Diameter, Inches	Number of B. & S. Shank	Whole Length, Inches	Length of Cut, Inches	List Each Carbon Steel	List Each High Speed
1/4	5	2 13/16	5/8	\$1.70	\$ 3.30
5/16	5	2 7/8	1 1/16	1.70	3.30
3/8	5	2 15/16	3/4	1.70	3.30
7/16	5	3 1/16	7/8	1.80	3.50
1/2	5	3 1/8	1 5/16	1.80	3.50
1/2	7	4 15/16	1 5/16	2.60	5.10
9/16	7	5	1	2.60	5.10
5/8	7	5 1/8	1 1/8	2.70	5.30
3/4	7	5 1/4	1 1/4	2.70	5.30
7/8	7	5 1/2	1 1/2	3.10	6.10
1	7	5 5/8	1 5/8	3.50	7.00
1 1/8	9	7	1 3/4	4.70	9.30
1 1/4	9	7 1/4	2	5.30	10.50
1 1/2	9	7 1/2	2 1/4	6.70	13.30
1 3/4	9	7 3/4	2 1/2	8.30	16.60
2	9	8	2 3/4	10.50	21.00

DISCOUNT { Carbon ..... LIST NET  
High Speed ..... 30% OFF

## SLOTING END MILLS—Two-Lipped

### With Brown & Sharpe Taper Shanks

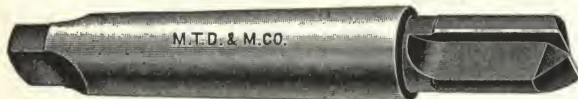


Fig. No. 1911M, High Speed Steel

In ordering state whether right or left hand is wanted.

These mills are regularly furnished either right or left hand and with straight flutes or spiral flutes. Dimensions other than listed are special and subject to special prices.

End Mills with No. 5 shank are furnished without tang. End Mills with No. 9 Shank are furnished with tang end or with tapped hole for drawback spindle.

Diameter, Inches	Number of B. & S. Shank	Whole Length, Inches	List Each High Speed	Diameter, Inches	Number of B. & S. Shank	Whole Length, Inches	List Each High Speed
1/4	5	2 9/16	\$3.40	5/8	7	4 15/16	\$ 5.60
1/4	7	4 3/8	5.30	3/4	7	5 1/8	5.80
5/16	5	2 1/2	3.40	7/8	7	5 5/16	6.70
5/16	7	4 15/32	5.30	1	9	6 3/4	9.90
3/8	7	4 9/16	5.40	1 1/4	9	7 1/8	11.60
7/16	7	4 21/32	5.40	1 1/2	9	7 1/2	14.60
1/2	7	4 3/4	5.40				

DISCOUNT, High Speed ..... 30% OFF

## MORSE END MILLS—Spiral Flutes

### With Morse Taper Shanks



Fig. No. 907M, Carbon Steel  
Fig. No. 1907M, High Speed Steel

Regularly furnished right hand with right hand spiral flutes. Left Hand Spiral Cut End Mills are special. Sizes and dimensions not listed are special.

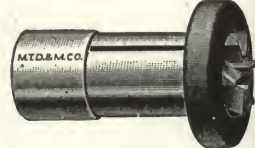
Diameter, Inches	Number of Morse Shank	List Each Carbon Steel	List Each High Speed	Diameter, Inches	Number of Morse Shank	List Each Carbon Steel	List Each High Speed
1/4	1	\$1.60	\$3.20	3/4	3	\$3.50	\$7.00
5/16	1	1.70	3.30	7/8	2	2.90	5.70
3/8	1	1.70	3.30	1	3	3.50	7.00
7/16	1	1.70	3.30	1 1/8	2	3.30	6.60
1/2	1	1.70	3.40	1 1/4	3	3.70	7.30
1 1/2	2	2.40	4.80	1 1/8	3	4.20	8.40
5/8	2	2.50	4.90	1 1/4	3	4.80	9.60
3/4	2	2.50	4.90				

DISCOUNT { Carbon ..... LIST NET  
High Speed ..... 30% OFF

## MORSE HOLLOW MILLS

SOLID

ADJUSTABLE



No. 886M, Carbon Steel  
No. 1886M, High Speed

The holes in these mills are carefully ground to size, and have a proper relief.

Hollow mills having dimensions other than listed are special and subject to special prices.

No. 885M, Carbon Steel  
No. 1885M, High Speed

Forcing the Ring on the Mill will correct any slight wear.

Diam. of Hole, Inches	Outside Diam., Inches	List Each		Diam. of Hole, Inches	Outside Diam., Inches	List Each	
		Carbon Steel	High Speed Steel			Carbon Steel	High Speed Steel
3/16	5/8	\$1.35	\$3.60	3/8	5/8	\$1.85	\$4.25
1/8	5/8	1.35	3.60	1/2	5/8	1.85	4.25
3/8	5/8	1.35	3.60	3/4	5/8	1.85	4.25
1/2	5/8	1.35	3.60	1	5/8	1.85	4.25
3/4	5/8	1.35	3.60	1 1/4	5/8	1.85	4.25
1	5/8	2.00	3.90	1 1/2	5/8	2.60	4.70
1 1/4	5/8	2.00	3.90	1 3/4	5/8	2.60	4.70
1 1/2	5/8	2.00	3.90	2	5/8	2.60	4.70
1 3/4	5/8	2.70	4.25	2 1/4	5/8	3.50	5.20
2	5/8	2.70	4.25	2 1/2	5/8	3.50	5.20
2 1/4	5/8	3.00	5.55	2 3/4	5/8	3.50	5.20
2 1/2	5/8	3.00	5.55	3	5/8	3.50	5.20
2 3/4	5/8	3.35	6.85	3 1/4	5/8	4.00	6.85
3	5/8	3.35	6.85	3 1/2	5/8	4.00	6.85
3 1/4	5/8	4.00	8.45	3 3/4	5/8	4.60	8.45
3 1/2	5/8	4.00	8.45	4	5/8	5.50	10.40
4	5/8	4.00	8.45	4 1/4	5/8	5.50	10.40

DISCOUNT { Carbon Steel ..... LIST NET  
High Speed Steel ..... 30% OFF

## MORSE STRAIGHT SHANK END MILLS—With Straight and Spiral Flutes

In Ordering State Whether Right or Left Hand Mills Are Wanted

1/8 TO 7/32  
INCH WITH  
STRAIGHT  
FLUTES



Fig. 891M, Carbon  
Fig. 1891M, High Speed



1/4 TO 3/4  
INCH WITH  
SPIRAL  
FLUTES

Diameter Inch	Length Cut	Whole Length	List Each Carbon Steel	List Each High Speed	Diameter Inch	Length Cut	Whole Length	List Each Carbon Steel	List Each High Speed
1/8	5/16	1 1/4	\$ .70	\$1.40	3/8	3/4	1 3/16	\$1.10	\$2.10
5/32	5/16	1 1/4	.80	1.50	7/16	7/8	2 1/16	1.20	2.30
3/16	1/2	1 3/8	.90	1.70	1/2	1 5/16	2 1/4	1.30	2.50
7/32	9/16	1 5/8	.90	1.80	9/16	1	2 5/16	1.40	2.70
1/4	5/8	1 11/16	.90	1.80	5/8	1 1/8	2 1/2	1.50	3.00
5/16	1 1/16	1 3/4	1.00	1.90	3/4	1 1/4	2 5/8	1.80	3.50

DISCOUNTS: Carbon Steel ..... LIST NET

High Speed Steel ..... 30% OFF



# JOBBER'S' REAMERS—With Straight Shanks

Fig. 601MT  
Carbon Steel

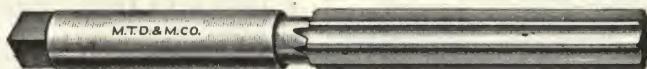


Fig. 1601M  
High Speed Steel

## LIST PRICES EACH

Diam., Inches	Whole Length, Inches	Flute Length, Inches	List Each Carbon Steel	List High Speed Steel	Diam., Inches	Whole Length, Inches	Flute Length, Inches	List Each Carbon Steel	List High Speed Steel	Diam., Inches	Whole Length, Inches	Flute Length, Inches	List Each Carbon Steel	List High Speed Steel
1/8	3	1 1/2	\$1.00	\$3.00	5/8	7	3 1/2	2.20	6.25	1 1/16	12	6	4.60	14.25
5/32	3 1/4	1 5/8	1.20	3.25	21/32	7 3/8	3 11/16	2.40	6.75	1 1/4	12 1/4	6 1/8	4.90	15.75
3/16	3 1/2	1 3/4	1.20	3.25	11/16	7 3/4	3 7/8	2.40	6.75	1 3/16	12 1/2	6 1/4	5.20	17.25
1/2	3 3/4	1 7/8	1.40	3.50	23/32	8 1/8	4 1/16	2.60	7.25	1 3/8	12 5/8	6 5/16	5.60	18.75
1/4	4	2	1.40	3.50	3/4	8 3/8	4 3/16	2.60	7.25	1 1/2	12 7/8	6 7/16	6.00	20.50
9/32	4 1/4	2 1/8	1.50	3.75	25/32	8 3/4	4 3/8	2.80	7.75	1 5/8	13	6 1/2	6.40	22.25
5/16	4 1/2	2 1/4	1.50	3.75	13/16	9 1/8	4 9/16	2.80	7.75	1 3/4	13	6 1/2	6.80	.....
11/32	4 3/4	2 3/8	1.60	4.25	27/32	9 3/8	4 11/16	3.10	8.50	1 7/8	13	6 1/2	7.20	.....
3/8	5	2 1/2	1.60	4.25	7/8	9 3/4	4 7/8	3.10	8.50	1 11/16	13 1/2	6 3/4	7.60	.....
13/32	5 1/4	2 5/8	1.75	4.75	29/32	10	5	3.40	9.50	1 3/4	13 1/2	6 3/4	8.00	.....
7/16	5 1/2	2 3/4	1.75	4.75	15/16	10 1/4	5 1/8	3.40	9.50	1 13/16	13 1/2	6 3/4	8.40	.....
15/32	5 3/4	2 7/8	1.90	5.25	31/32	10 5/8	5 5/16	3.70	10.50	1 7/8	14	7	8.80	.....
1/2	6	3	1.90	5.25	1	10 7/8	5 7/16	3.70	10.50	1 15/16	14	7	9.20	.....
17/32	6 1/4	3 3/8	2.00	5.75	1 1/16	11 1/4	5 5/8	4.00	11.50	2	14	7	9.60	.....
9/16	6 1/2	3 1/4	2.00	5.75	1 1/8	11 5/8	5 13/16	4.30	12.75					
19/32	6 3/4	3 3/8	2.20	6.25										

64th sizes, 1/8 to 3/4 inch, of carbon steel furnished at price of next larger size. All other 64th sizes at special prices. Jobbers' Reamers with threaded ends and all sizes and dimensions not listed are special and subject to special prices. Reamers for Brass or Bronze require special clearance and are so furnished on request.

Carbon Steel, All Sizes.....	25% OFF
High Speed Steel, All Sizes.....	45% OFF

## DISCOUNT

## MORSE EXPANSION REAMERS

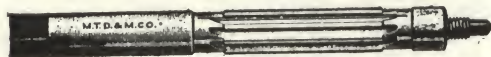


Fig. No. 715M

Limits of expansion recommended for these Reamers are as follows: Sizes 1/4 to 1 1/2 .005 inch; 1/2 to 1 1/2 .008 inch; 1 inch to 1 3/4 .010 inch; 1 1/4 to 2 inch .012 inch. Guides are ground .005 inch under size. Reamers for Brass or Bronze require special clearance, are so furnished on request and shipped from factory only.

## LIST EACH

Diameter, Inches	Whole Length, Inches	Length of Flutes, Inches	List Each	Diameter, Inches	Whole Length, Inches	Length of Flutes, Inches	List Each
1/4	4	1 1/2	\$3.00	1	10	4 1/2	\$6.75
9/32	4	1 1/2	3.10	1 1/16	10	4 1/2	7.25
5/16	4	1 1/2	3.10	1 1/16	10	4 1/2	7.25
11/32	4	1 1/2	3.20	1 1/16	10	4 1/2	7.75
3/8	5	2	3.20	1 1/8	10 1/2	4 3/4	7.75
13/32	5	2	3.30	1 5/16	10 1/2	4 3/4	8.30
7/16	5	2	3.30	1 3/8	10 1/2	4 3/4	8.30
15/32	5	2	3.40	1 7/16	10 1/2	4 3/4	8.90
1/2	6	2 1/2	3.40	1 1/4	11	5	8.90
17/32	6	2 1/2	3.65	1 3/8	11	5	9.50
9/16	6	2 1/2	3.65	1 5/16	11	5	9.50
19/32	6	2 1/2	4.00	1 11/16	11	5	10.50
5/8	7	3	4.00	1 3/4	11 1/2	5 1/4	10.50
21/32	7	3	4.40	1 13/16	11 1/2	5 1/4	11.50
11/16	7	3	4.40	1 7/8	11 1/2	5 1/4	11.50
23/32	7	3	4.80	1 15/16	11 1/2	5 1/4	12.50
3/4	8	3 1/2	4.80	1 1/2	12	5 1/2	12.50
25/32	8	3 1/2	5.25	1 5/8	12	5 1/2	13.00
13/16	8	3 1/2	5.25	1 5/8	12 1/2	5 3/4	13.50
27/32	8	3 1/2	5.75	1 11/16	12 1/2	5 3/4	14.00
7/8	9	4	5.75	1 3/4	13	6	14.50
29/32	9	4	6.25	1 13/16	13	6	15.00
15/16	9	4	6.25	1 7/8	13 1/2	6 1/4	15.50
31/32	9	4	6.75	1 15/16	13 1/2	6 1/4	16.00
				2	14	6 1/2	16.50

DISCOUNT .....	25% OFF
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## SPIRAL FLUTE EXPANSION REAMERS

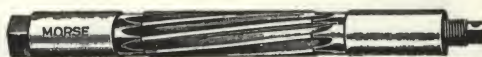


Fig. No. 717M

Solid guide assures perfect alignment. For reaming two holes at one time. Spiral flutes make it an easy free cutting tool, if there is a longitudinal slot, key-way or chamber in hole reamer does not catch or chatter. Has a long guide and is adapted for reaming piston pin holes. Easily adjustable to a few thousandths over-size and is a very handy and useful tool. Sizes and dimensions not listed are special and subject to special prices. Will be furnished ground for brass or bronze unless otherwise specified.

Limits of expansion recommended for these reamers are as follows: Sizes 3/8 to 1 1/2 .005 inch; 1/2 to 1 1/2 .008 inch; 1 to 1 1/2 .010 inch.

## LIST EACH

Diameter, Inches	Length, Flute Inches	Length Overall Inches	List Each	Diameter, Inches	Length, Flute Inches	Length, Overall Inches	List Each
3/8	1 7/8	6 1/8	\$ 5.60	7/8	3 3/8	9 3/8	\$10.00
13/32	1 7/8	6 1/8	5.80	29/32	3 3/2	9 5/8	10.40
7/16	1 5/8	6 3/16	5.80	15/16	3 3/8	9 7/8	10.80
15/32	1 5/8	6 3/16	6.00	31/32	3 3/8	10 3/32	11.30
1/2	1 5/8	6 3/16	6.00	1	3 3/8	10 1/4	11.80
17/32	1 5/8	6 3/16	6.20	1 1/32	4	10 1/2	12.20
9/16	2 1/16	6 25/32	6.40	1 1/16	4 1/16	10 11/16	12.60
19/32	2 1/16	7	6.70	1 3/32	4 1/8	10 13/16	13.10
.6093	2 1/16	7 1/32	6.70	1 1/8	4 1/8	10 7/8	13.60
5/8	2 1/16	7 1/32	7.00	1 5/16	4 3/16	11 1/32	14.10
21/32	2 1/2	8 5/32	7.30	1 3/8	4 3/8	11 1/8	14.60
.668	2 1/16	8 3/8	7.70	1 7/16	4 1/4	11 3/16	15.60
11/16	2 1/16	8 3/8	7.70	1 225	4 1/4	11 3/8	15.60
23/32	2 3/4	8 15/32	8.00	1.234	4 1/4	11 3/8	15.60
.734	2 13/16	8 17/32	8.40	1 1/4	4 1/4	11 3/8	15.60
.740	2 13/16	8 17/32	8.40	1 5/16	4 3/8	11 1/2	16.60
3/4	2 13/16	8 17/32	8.40	1 3/8	4 3/8	11 3/8	16.60
25/32	3	8 13/16	8.80	1 11/16	4 1/2	11 11/16	18.00
13/16	3 1/16	9	9.20	1 3/4	4 1/2	11 3/4	18.00
27/32	3 1/4	9 1/4	9.60	1 13/16	4 1/2	11 7/8	20.00
.850	3 3/8	9 3/8	10.00	1 7/8	4 1/2	11 15/16	20.00
.855	3 3/8	9 3/8	10.00	1 15/16	4 1/2	12	22.00
.860	3 3/8	9 3/8	10.00	1 1/2	4 1/2	12 1/16	22.00
.865	3 3/8	9 3/8	10.00				

DISCOUNT .....	40% OFF
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MORSE ADJUSTABLE REAMERS



Carbon—Fig. 728M

High Speed—Fig. 1728M

The six tapered blades slide lengthwise in the body slots and are firmly held by the two collars in the position that gives the size desired. No special wrench is needed.

These Reamers will be furnished ground for Brass or Bronze unless otherwise specified.

Size Letter	Range of Adjustment		Whole Length, Inches	Blade, of Inches	List, Each	
	Min.	Max.			Carbon Steel	High Speed Steel
4/A	3/8	13/32	4 3/4	1 1/2	\$3.50	\$4.75
3/A	1/2	7/16	5	1 1/2	4.00	5.25
2/A	7/16	15/32	5 1/4	1 5/8	4.00	5.25
A	15/32	17/32	5 1/2	1 11/16	4.50	5.75
B	17/32	19/32	5 3/4	1 13/16	4.50	5.75
C	19/32	21/32	6 1/2	2 1/4	4.75	6.00
D	21/32	23/32	6 3/4	2 1/4	4.75	6.25
E	23/32	25/32	7	2 7/16	5.00	6.50
F	25/32	27/32	7 1/2	2 19/32	5.00	6.80
G	27/32	15/16	8	3	5.50	7.10
H	15/16	1 1/16	9	3 1/4	5.80	7.85
I	1 1/16	1 1/8	10	3 3/8	7.00	8.75
J	1 1/8	1 1/4	11	3 5/8	8.00	10.00
K	1 1/4	1 1/2	12	4 3/16	10.00	12.50
L	1 1/2	1 5/8	14	4 3/4	11.50	15.00
M	1 5/8	2	16	5	15.00	18.75
N	2	2 1/8	18	5 1/2	18.00	22.50
O	2 1/8	2 1/4	20	6 1/2	22.00	27.50

DISCOUNTS

Fig. 728M, Carbon Steel, All Sizes.....40% OFF  
Fig. 1728M, High Speed Steel.....LIST NET

EXPANDING REAMER IN SETS

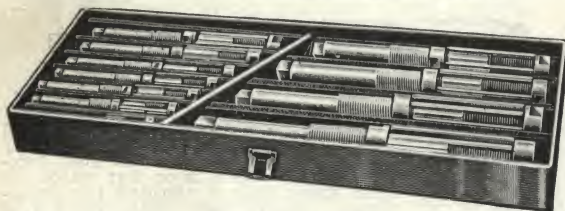


Fig. No. 2585X

Set of reamers, A to H, inclusive. List per Set..\$41.50  
Set of reamers, A to K, inclusive. List per Set.. 67.00  
DISCOUNT, Carbon Steel .....40% OFF

MORSE TAPER FINISHING REAMER  
For Reaming Drill Sockets



Fig. No. 636M

LIST EACH		Approx. Size, In.		Full Length, In.
For Socket	List Each	Flute, In.	Large End	
No. 0.....	\$1.60	2 1/4	.367	.250 3 3/4
No. 1.....	2.00	3	.517	.367 5
No. 2.....	2.60	3 1/2	.745	.569 6
No. 3.....	3.40	4 1/4	.988	.775 7 1/4
No. 4.....	4.20	5 1/4	1.289	1.017 8 1/2
No. 5.....	6.60	6 1/4	1.799	1.471 9 3/4

DISCOUNT, Carbon Steel .....20% OFF

Roughing Reamers, Prices On Application.

MORSE TAPER REAMERS FOR BIT BRACE



Fig. No. 692M

LIST EACH									
Size, In....	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4
List, each..	\$0.60	\$0.60	\$0.65	\$0.70	\$0.75	\$0.80	\$0.95	\$1.10	\$1.25

DISCOUNT .....25% OFF

GENUINE CRITCHLEY  
EXPANDING ANGLE BLADE REAMERS  
6 ANGLE BLADES—THEY DO NOT CHATTER



Fig. 4322 Critchley

Distinctly different because Critchley angle blade reamers cut PAST center with the cutting edge operating with a draw cut which eliminates chatter. All set with the blade on an angle which produces a shearing cut. A safety device prevents over-expansion. Blades have a semi-high speed Tungsten Alloy Steel which will hold a sharp cutting edge a long time. Hardened square. Hardened nuts. It requires five spiral reamers to do the work of one angle blade reamer. Guaranteed to do a perfect job.

LETTER SIZES (32's)			NUMBER SIZES (16ths)		
Letter Sizes	Expansion Inches	★ NET EACH	Number Sizes	Expansion Inches	★ NET EACH
AA	27/64 to 15/32	\$ 2.48	19	27/64 to 29/64	\$ 2.48
A	15/32 to 17/32	\$ 2.48	20	7/16 to 1/2	\$ 2.48
B	17/32 to 19/32	\$ 2.48	21	1/2 to 9/16	\$ 2.48
C	19/32 to 21/32	\$ 2.61	22	9/16 to 5/8	\$ 2.48
D	21/32 to 23/32	\$ 2.61	23	5/8 to 11/16	\$ 2.61
E	23/32 to 25/32	\$ 2.75	24	11/16 to 3/4	\$ 2.61
F	25/32 to 27/32	\$ 2.75	25	3/4 to 13/16	\$ 2.75
G	27/32 to 15/16	\$ 3.03	26	13/16 to 7/8	\$ 2.75
H	15/16 to 1 1/16	\$ 3.19	27	7/8 to 1	\$ 3.03
I	1 1/16 to 1 1/8	\$ 3.85	28	1 to 1 1/8	\$ 3.19
J	1 1/8 to 1 1/4	\$ 4.40	29	1 1/8 to 1 1/4	\$ 3.85
K	1 1/4 to 1 1/2	\$ 5.50	30	1 1/4 to 1 1/2	\$ 4.40
L	1 1/2 to 1 5/8	\$ 6.33	31	1 1/2 to 1 5/8	\$ 5.50
STRAIGHT BLADE			32	1 5/8 to 1 7/8	\$ 6.33
M	1 5/8 to 2	\$ 8.25	STRAIGHT BLADE		
N	2 to 2 1/8	\$ 9.90	33	1 7/8 to 2	\$ 8.25
O	2 1/8 to 2 1/4	\$12.10	34	2 to 2 1/8	\$ 9.90
P	2 1/4 to 2 1/2	\$14.30	35	2 1/8 to 2 1/4	\$12.10
Q	2 1/2 to 2 3/4	\$16.50	36	2 1/4 to 2 1/2	\$14.30
			37	2 3/4 to 3	\$16.50

GENUINE CRITCHLEY  
EXPANDING REAMER SETS



Fig. 4323

Each set contains Critchley six blade reamers.

Set Number	Number Reamers	Size Numbers	Expansion Inches	★ NET SET
7620	7	20 to 26	7/16 to 7/8	\$18.15
10620	10	20 to 29	7/16 to 1 1/4	\$28.25
10619	10	19 to 28	27/64 to 1 1/8	\$26.85
146	14	20 to 33	7/16 to 2 3/16	\$52.69
86A	8	A to H	15/32 to 1 1/16	\$21.89
106A	10	A to J	15/32 to 1 1/8	\$30.14
116A	11	A to K	15/32 to 1 1/2	\$35.64

GENUINE CRITCHLEY  
ADJUSTABLE BLADE REAMERS

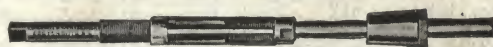


Fig. 5310. Model LP

With long pilot. For fitting king pins and piston pins.

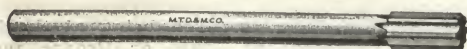
Size No.	Range of Expansion Inches	Size No.	Range of Expansion Inches	LIST EACH	List Blade Each
LP21	1/2 to 9/16	B-LP	17/32 to 19/32	\$6.50	\$0.30
LP22	9/16 to 5/8			\$6.50	\$0.30
LP23	5/8 to 11/16	C-LP	19/32 to 21/32	\$6.75	\$0.30
LP24	11/16 to 3/4	D-LP	21/32 to 23/32	\$6.75	\$0.30
LP25	3/4 to 13/16	E-LP	23/32 to 25/32	\$7.00	\$0.35
LP26	13/16 to 7/8	F-LP	25/32 to 27/32	\$7.25	\$0.35
LP27	7/8 to 1	G-LP	27/32 to 15/16	\$7.50	\$0.40
LP28	1 to 1 1/8	H-LP	15/16 to 1 1/16	\$8.75	\$0.40
LP29	1 1/8 to 1 1/4	I-LP	1 1/16 to 1 3/16	\$10.25	\$0.45
LP30	1 1/4 to 1 1/2	J-LP	1 3/16 to 1 1/2	\$11.50	\$0.45
LP31	1 1/2 to 1 5/8	K-LP	1 1/2 to 1 17/32	\$14.75	\$0.50

DISCOUNT .....40% OFF



## MORSE FLUTED CHUCKING REAMERS

With Straight Shanks



Carbon—Fig. No. 655M. High Speed—Fig. No. 1655M

Reamers for Brass or Bronze require special clearance and are so furnished on request. All sizes and dimensions not listed are special and subject to special prices.

Diam. Inches	Whole Length Inches	Length of Flutes, Inches	List Each		Diam. Inches	Whole Length Inches	Length of Flutes, Inches	List Each	
			Carbon Steel	High Speed Steel				Carbon Steel	High Speed Steel
1/8	3 1/2	7/8	\$0.90	\$2.00	23/32	9	2 1/4	\$2.55	\$6.75
3/16	4	1	1.00	2.50	25/32	9 1/2	2 1/2	2.55	6.75
1/4	4 1/2	1 1/8	1.00	2.50	27/32	9 1/2	2 1/2	2.80	7.25
5/16	5	1 1/4	1.20	3.00	29/32	9 1/2	2 1/2	2.80	7.25
3/8	6	1 1/2	1.20	3.00	31/32	9 1/2	2 1/2	3.00	8.00
7/16	6	1 1/2	1.30	3.25	1	10	2 1/2	3.00	8.00
1/2	6	1 1/2	1.45	3.75	1 1/16	10	2 1/2	3.25	9.00
9/16	7	1 3/4	1.45	3.75	1 1/8	10	2 1/2	3.25	9.00
5/8	7	1 3/4	1.60	4.25	1 1/4	10 1/2	2 3/4	3.45	10.00
3/4	7	1 3/4	1.60	4.25	1 1/2	10 1/2	2 3/4	3.70	11.25
7/8	7	1 3/4	1.80	4.75	1 5/8	11	2 3/4	3.90	12.50
15/16	8	2	1.80	4.75	1 3/4	11	2 3/4	4.15	13.75
1	8	2	2.00	5.25	1 7/8	11	2 3/4	4.35	15.25
1 1/16	8	2	2.00	5.25	1 15/16	11 1/2	3	4.35	15.25
1 1/8	8	2	2.25	5.75	1 1/2	11 1/2	3	4.60	17.00
1 1/4	9	2 1/4	2.25	5.75	1 5/8	12	3 1/4	4.80	18.75
1 1/2	9	2 1/4	2.40	6.25	1 3/4	12	3 1/4	5.05	20.50
1 5/8	9	2 1/4	2.40	6.25	1 7/8	12 1/2	3 1/2	5.25	22.25

## DISCOUNT

Carbon Steel . . . . .25% OFF  
High Speed Steel . . .60% OFF

## MORSE FLUTED CHUCKING REAMERS

With Morse Taper Shanks



Fig. 656 Carbon Steel Fig. 1656 High Speed Steel

Reamers for Brass or Bronze require special clearance and are so furnished on request. Sizes and dimensions not listed are special and subject to special prices.

Diameter Inches	Whole Length Inches	Length of Flute Inches	Morse Taper Shank	List Each Carbon Steel	List Each High Speed Steel
1/8	6	1 1/2	No. 1	\$1.45	\$3.50
3/16	6	1 1/2	No. 1	1.55	3.75
1/4	6	1 1/2	No. 1	1.75	4.25
5/16	7	1 3/4	No. 1	1.75	4.25
3/8	7	1 3/4	No. 1	1.90	4.75
7/16	7	1 3/4	No. 1	2.15	5.25
1/2	8	2	No. 1	2.15	5.25
9/16	8	2	No. 1	2.40	5.75
5/8	8	2	No. 1	2.70	6.25
3/4	9	2 1/4	No. 2	2.70	6.25
7/8	9	2 1/4	No. 2	2.90	6.75
15/16	9	2 1/4	No. 2	3.05	7.25
1	9 1/2	2 1/2	No. 2	3.05	7.25
1 1/16	9 1/2	2 1/2	No. 2	3.35	8.00
1 1/8	9 1/2	2 1/2	No. 2	3.60	9.00
1 1/4	10	2 3/4	No. 2	3.60	9.00
1 1/2	10	2 3/4	No. 2	3.90	10.00
1 5/8	10	2 3/4	No. 3	3.90	10.00
1 3/4	10	2 3/4	No. 3	4.15	11.00
1 7/8	10 1/2	2 3/4	No. 3	4.15	11.00
2	10 1/2	2 3/4	No. 3	4.45	12.25
2 1/16	11	2 3/4	No. 3	4.70	13.50
2 1/8	11	2 3/4	No. 3	5.00	14.75
2 1/4	11 1/2	3	No. 4	5.20	16.25
2 3/8	11 1/2	3	No. 4	5.50	18.00
2 1/2	12	3 1/4	No. 4	5.75	19.75
2 5/8	12	3 1/4	No. 4	6.05	21.50
2 3/4	12 1/2	3 1/2	No. 4	6.30	23.25

## DISCOUNT

Carbon Steel . . . . .25% OFF  
High Speed Steel . . .60% OFF

## MORSE EXPANDING CHUCKING REAMERS

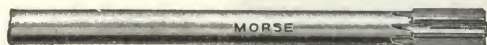


Fig. 1733M. STRAIGHT SHANK



Fig. 1734M. MORSE TAPER SHANK

Sturdy, rugged and built for service. When worn below size expand it slightly and regrind, then give it more work to do. As this operation can be repeated several times, one reamer does the work of several solid ones—at a considerable saving in cost. Regular sizes: 3/8 to 1-7/32 inch by 32nds; 1-1/4 to 2 inches by 16ths.

## LIST PRICES EACH HIGH SPEED STEEL

Diameter Inches	Whole Length Inches	Length of Flute Inches	1733M Straight Shank	1734M Morse Taper Shank	1734M Morse Taper Shank
3/8	7	3/4	\$ 3.75	1	\$ 4.25
1/2	7	1 1/8	4.00	1	4.50
5/8	8	1	4.25	2	4.75
3/4	8	1 1/8	4.50	2	5.00
7/8	9	1 1/4	4.75	2	5.25
15/16	9	1 1/4	5.00	2	5.50
1	9 1/2	1 3/8	5.50	3	6.00
1 1/16	9 1/2	1 3/8	6.00	3	6.40
1 1/8	10	1 1/2	6.50	3	7.00
1 1/4	10	1 1/2	7.10	3	7.60
1 1/2	10 1/2	1 5/8	7.80	3	8.30
1 5/8	10 1/2	1 5/8	8.60	3	9.00
1 3/4	11	1 3/4	9.40	4	9.80
1 7/8	11	1 3/4	10.00	4	10.60
2	11 1/2	1 7/8	10.70	4	11.50
2 1/16	11 1/2	1 7/8	11.10	4	12.00
2 1/8	12	2	11.50	4	12.50
2 1/4	12	2	12.00	4	13.10
2 3/8	12 1/2	2 1/8	12.50	4	13.60
2 1/2	13	2 1/4	13.70	4	14.85
2 5/8	13 1/2	2 3/8	15.00	5	16.30
2 3/4	14	2 1/2	16.40	5	18.00
2 7/8	14	2 1/2	18.00	5	19.80

## DISCOUNT . . . . .25% OFF

## MORSE DIE MAKERS REAMERS



Fig. 678M. Carbon Steel. Fig. 1678SM. High Speed Steel. Taper 3/4 degree included angle, or .013 inch per inch.

Size	Diameter Small End, Inches	Diameter Large End, Inches	LIST EACH	
			Carbon Steel	High Speed Steel
AAA	.058	.073	\$2.50	\$3.00
AA	.066	.082	2.50	3.00
A	.075	.091	2.50	3.00
B	.084	.101	2.25	2.75
C	.093	.111	2.25	2.75
D	.103	.122	2.25	2.75
E	.113	.133	2.25	2.75
F	.124	.145	2.50	3.00
G	.134	.157	2.50	3.00
H	.146	.170	2.75	3.50
I	.158	.184	2.75	3.50
J	.171	.199	2.75	3.50
K	.186	.215	3.50	4.25
L	.201	.233	3.50	4.25
M	.217	.253	3.50	4.25
N	.236	.275	4.00	5.00
O	.258	.300	4.25	5.25
P	.281	.328	4.50	5.50
Q	.307	.359	4.75	5.75
R	.336	.393	5.00	6.00
S	.369	.431	5.25	6.25
T	.405	.473	5.50	6.75
U	.443	.518	5.75	7.00

## DISCOUNT . . . . .10% OFF



## MORSE FLUTED SHELL REAMERS



Fig. 625M Carbon Steel

Fig. 1625M High Speed Steel

Shell Reamers have taper holes, the diameter given being at the large end. Keep cutting points sharp. Reamers for Brass or Bronze require special clearance and are so furnished on request. Sizes not listed can be furnished, prices on application for sizes not listed.

Diameter, Inches	Whole Length, Inches	Size Hole, Inches	List Each Carbon Steel	List Each High Speed Steel	Diameter, Inches	Whole Length, Inches	Size Hole, Inches	List Each Carbon Steel	List Each High Speed Steel	Diameter, Inches	Whole Length, Inches	Size Hole, Inches	List Each Carbon Steel	List Each High Speed Steel
3/4	2 1/4	3/8	\$2.10	\$3.85	1 1/2	3	3/4	\$4.30	\$ 7.50	2 3/4	3 3/4	1 1/4	\$ 8.00	\$16.50
13/16	2 1/2	1/2	2.20	4.00	1 1/2	3	3/4	4.55	8.25	2 3/4	3 3/4	1 1/4	8.35	17.25
7/8	2 1/2	1/2	2.30	4.25	1 1/2	3	3/4	4.80	9.00	2 3/4	3 3/4	1 1/4	8.70	18.00
15/16	2 1/2	1/2	2.40	4.50	1 1/2	3 1/2	1	5.10	9.75	2 3/4	3 3/4	1 1/4	9.05	18.75
1	2 1/2	1/2	2.50	4.75	1 3/4	3 1/2	1	5.40	10.50	2 3/4	3 3/4	1 1/4	9.40	19.50
1 1/16	2 3/4	5/8	2.70	5.00	1 3/4	3 1/2	1	5.70	11.25	2 3/4	4	1 1/2	9.80	20.50
1 1/8	2 3/4	5/8	2.90	5.25	1 3/4	3 1/2	1	6.00	12.00	2 3/4	4	1 1/2	10.20	21.75
1 1/4	2 3/4	5/8	3.10	5.50	1 3/4	3 1/2	1	6.30	12.75	2 3/4	4	1 1/2	10.60	23.00
1 1/2	2 3/4	5/8	3.30	5.75	2	3 1/2	1	6.60	13.50	2 3/4	4	1 1/2	11.00	24.25
1 5/16	3	3/4	3.55	6.00	2 1/16	3 3/4	1 1/4	6.95	14.25	2 3/4	4	1 1/2	11.40	25.50
1 3/8	3	3/4	3.80	6.50	2 1/8	3 3/4	1 1/4	7.30	15.00	2 3/4	4	1 1/2	11.80	27.00
1 1/2	3	3/4	4.05	7.00	2 1/8	3 3/4	1 1/4	7.65	15.75	2 3/4	4	1 1/2	12.20	28.50
										3	4	1 1/2	12.60	30.00

## DISCOUNT

{ All Sizes, Carbon Steel.....15% OFF  
 { All Sizes, High Speed Steel.....10% OFF

## MORSE ARBORS—For Shell Reamers



Fig. 506M With Morse Taper Shanks  
 Fig. 505M With Straight Shank Can Also  
 Be Furnished When Requested

No.	Fitting Sizes, Inches	Whole Length, Inches	Morse Taper Shank	List Each	No.	Fitting Sizes, Inches	Whole Length, Inches	Morse Taper Shank	List Each
4	2 1/2 to 2 5/8	9	No. 2	\$3.25	7	1 5/16 to 1 1/2	11	No. 3	\$4.30
5	1 1/2 to 1 5/8	9 1/2	No. 2	3.60	8	1 1/2 to 2	12	No. 4	4.80
6	1 1/2 to 1 5/8	10	No. 3	3.95	9	2 1/16 to 2 1/2	13	No. 4	5.40
					10	2 1/8 to 3	14	No. 5	6.30

PRICE ..... LIST NET

## 5-GROOVE STRUCTURAL REAMERS



Fig. 1701M. High Speed Steel

With spiral flutes. Morse taper shanks. For boiler makers, bridge and ship builders. All sizes, dimensions and styles not listed are special and subject to special prices.

Diam. at A, Inches	Diam. at B, Inches	Diam. at C, Inches	Whole Length, Inches	Length of Flutes, Inches	Length of Taper, B to C, Inches	Morse Shank	LIST EACH High Speed Steel
13/32	13/32	15/64	8 1/4	4 3/8	1	2	\$ 3.40
7/16	7/16	1/4	8 1/4	4 3/8	1	2	3.40
15/32	15/32	9/32	9	5 1/8	2	2	3.65
1/2	1/2	5/16	9	5 1/8	2	2	3.65
17/32	17/32	11/32	9	5 1/8	2	2	4.00
9/16	9/16	3/8	9	5 1/8	2	2	4.00
5/8	5/8	3/8	10	6 1/8	2	2	4.70
1 1/16	1 1/16	3/8	11 3/4	7 1/8	3	3	5.50
3/4	3/4	7/16	12	7 3/8	3	3	6.00
13/16	13/16	1/2	12	7 3/8	3	3	6.50
7/8	7/8	9/16	12	7 3/8	3	3	7.00
15/16	15/16	5/8	12	7 3/8	3	3	7.75
1	1	11/16	12	7 3/8	3	3	8.50
1 1/16	1 1/16	3/4	12	7 3/8	3	3	9.50
1 1/8	1 1/8	13/16	12	7 3/8	3	3	10.50
1 1/4	1 1/4	7/8	12	7 3/8	3	3	11.75
1 1/2	1 1/2	15/16	13	7 3/8	3	4	14.00
1 5/8	1 5/8	1	13	7 3/8	3	4	15.50
1 3/4	1 3/4	1 1/16	13	7 3/8	3	4	17.50
1 7/8	1 7/8	1 1/8	13	7 3/8	3	4	19.50
2	2	1 1/4	13	7 3/8	3	4	22.00

DISCOUNT ..... 50-10% OFF

MORSE DOUBLE-END  
FOUR FLUTE END MILLS  
HIGH SPEED STEEL

Fig. 4866

These mills are available with; right hand cut, right hand spiral; or left hand cut, left hand spiral.

TWO FLUTE Double-End End Mills can be furnished 1/8 to 1 inch by 16ths only at the same prices

Mill Diameter, Inches	Shank Diameter, Inches	Flute Length, Inches	Whole Length, Inches	H. S. LIST EACH
1/8	3/8	3/8	3-1/8	\$2.75
5/32	3/8	7/16	3-1/4	\$2.75
3/16	3/8	1/2	3-1/4	\$2.75
7/32	3/8	9/16	3-1/4	\$2.75
1/4	3/8	5/8	3-1/4	\$2.75
9/32	3/8	11/16	3-3/8	\$2.75
5/16	3/8	3/4	3-3/8	\$2.75
11/32	3/8	3/4	3-3/8	\$2.75
3/8	3/8	3/4	3-3/8	\$2.75
13/32	1/2	1	4-1/8	\$3.50
7/16	1/2	1	4-1/8	\$3.50
15/32	1/2	1	4-1/8	\$3.50
1/2	1/2	1	4-1/8	\$3.50
9/16	5/8	1-3/8	5	\$4.30
5/8	5/8	1-3/8	5	\$4.30
11/16	3/4	1-5/8	5-5/8	\$5.25
3/4	3/4	1-5/8	5-5/8	\$5.25
13/16	7/8	1-7/8	6-1/4	\$6.25
7/8	7/8	1-7/8	6-1/4	\$6.25
15/16	1	1-7/8	6-1/2	\$7.25
1	1	1-7/8	6-1/2	\$7.25

DISCOUNT ..... 20% OFF



**MORSE TAPER-PIN REAMERS**

**Taper 1/4 Inch Per Foot  
With Straight Flutes**

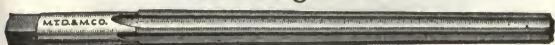


Fig. 680M. Carbon Steel  
Fig. 1680M High Speed Steel

**With Spiral Flutes**



Fig. 684M. Carbon Steel  
Fig. 1684M High Speed Steel

Reamers have the same taper, and each will overlay in convenient measure the next size smaller. Sizes, dimensions and styles not listed are special.

Size No.	Small End Diam., Inches	Flute Length, Inches	—Straight Flute—		—Spiral Flute—	
			680M Carbon Steel	1680M High Speed Steel	684M Carbon Steel	1684M High Speed Steel
7/0	.0497	3/16	\$1.75	\$3.50	\$2.10	\$3.85
6/0	.0611	5/16	1.60	3.50	1.95	3.85
5/0	.0719	13/16	1.50	3.25	1.80	3.60
4/0	.0869	15/16	1.50	3.25	1.80	3.60
3/0	.1029	15/16	1.50	3.25	1.80	3.60
2/0	.1137	19/16	1.35	3.00	1.65	3.30
0	.1287	19/16	1.00	2.80	1.20	3.10
1	.1447	19/16	1.00	2.90	1.20	3.20
2	.1605	15/16	1.25	3.00	1.50	3.30
3	.1813	23/16	1.50	3.00	1.80	3.30
4	.2071	23/16	1.75	3.25	2.10	3.60
5	.2409	23/16	2.00	3.50	2.40	3.85
6	.2773	31/16	2.25	4.25	2.70	4.70
7	.3297	47/16	2.50	5.25	3.00	5.80
8	.3971	53/16	3.00	6.75	3.60	7.45
9	.4805	61/16	3.50	8.25	4.20	9.10
10	.5799	63/16	4.50	9.00	5.40	9.90

DISCOUNT { Carbon Steel ..... 50% OFF  
High Speed Steel ..... 45% OFF

**MORSE HELICAL FLUTE  
TAPER PIN REAMERS**

**Taper 1/4 Inch to the Foot**



No. 683M Carbon Steel  
No. 1683M High Speed Steel

Reamers are designed especially for machine reaming on a production basis. The Morse three flute construction permits unusually free cutting and eliminates all chatter. Chips do not pack in the helical flutes and there is a minimum breakage.

**LIST PRICES EACH**

Size No.	List Each		Diam. at Small End, Inches	Whole Length of Reamer, Inches	Length of Flutes, Inches
	683M Carbon Steel	1683M High Speed			
7/0	\$2.25	\$2.75	.0497	15/16	5/16
6/0	2.00	2.50	.0611	15/16	5/16
5/0	2.00	2.50	.0719	23/16	13/16
4/0	2.00	2.50	.0869	25/16	15/16
3/0	1.75	2.25	.1029	25/16	15/16
2/0	1.75	2.25	.1137	29/16	19/16
0	1.75	2.25	.1287	29/16	19/16
1	2.00	2.50	.1447	29/16	19/16
2	2.25	2.75	.1605	33/16	15/16
3	2.50	3.00	.1813	33/16	23/16
4	2.75	3.50	.2071	41/16	23/16
5	3.00	3.75	.2409	45/16	23/16
6	3.50	4.25	.2773	57/16	31/16
7	4.00	5.00	.3297	65/16	47/16
8	4.50	5.75	.3971	73/16	53/16
9	5.00	6.25	.4805	83/16	61/16
10	6.00	7.50	.5799	95/16	63/16

DISCOUNT ..... 10% OFF

**MORSE TAPER PINS**

**THESE TAPER PINS ARE TURNED AND POLISHED, AND ARE EXACT TO SIZE**

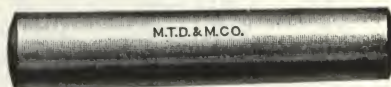


Fig. No. 585M

**LIST PRICES PER HUNDRED**

Number	00	0	1	2	3	4	5	6	7	8	9	10
Diameter at Large End, Inches	.141	.156	.172	.193	.219	.250	.289	.341	.409	.492	.591	.706
Approximate Fractional Sizes.	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	15/16	1
Length												
1/2 inch	\$1.80	\$1.80										
3/4 inch	1.80	1.80	\$2.00	\$2.10	\$2.30	\$2.50						
1 inch	2.05	2.05	2.25	2.35	2.55	2.75	\$3.00					
1 1/4 inch	2.30	2.30	2.50	2.60	2.80	3.00	3.25	\$3.50				
1 1/2 inch		2.55	2.75	2.85	3.05	3.25	3.50	3.75				
1 3/4 inch			3.00	3.10	3.30	3.50	3.75	4.00				
2 inch			3.25	3.35	3.55	3.75	4.05	4.35	\$4.75	\$ 5.80		
2 1/4 inch				3.60	3.80	4.00	4.40	4.75	5.25	6.25		
2 1/2 inch				3.85	4.05	4.25	4.75	5.20	5.75	6.75		
2 3/4 inch					4.30	4.50	5.10	5.70	6.25	7.25	\$ 9.80	
3 inch					4.55	4.75	5.45	6.25	6.75	7.80	10.50	
3 1/4 inch								6.75	7.25	8.40	11.20	
3 1/2 inch								7.25	7.75	9.00	11.90	\$15.25
3 3/4 inch								7.75	8.25	9.60	12.60	16.25
4 inch								8.25	8.75	10.20	13.30	17.25
4 1/4 inch										10.80	14.00	18.25
4 1/2 inch										11.40	14.70	19.25
4 3/4 inch											12.00	15.40
5 inch											12.60	16.10
5 1/4 inch												16.80
5 1/2 inch												17.50
5 3/4 inch												18.20
6 inch												18.90

Length, Inches	6/0	5/0	4/0	3/0
1	.078	.094	.109	.125
1 1/2				
2				
2 1/2				
3				
3 1/2				
4				
4 1/2				
5				
5 1/2				
6				

Taper 1/4 inch to foot. If ordering sizes other than those included in list specify length and size at large end. Highly polished and finely finished.

All sizes listed above line are suitable for use with No. 680 Taper Pin Reamers. All sizes listed below line require special reamers having longer flutes than standard.

**DISCOUNTS**

**In Lots of 100 of a Size**

No. 5 and smaller ..... 55% OFF  
No. 6 and larger ..... 45% OFF

**Broken Packages**

No. 5 and smaller ..... 50% OFF  
No. 6 and larger ..... 40% OFF

**TAPER PIN ASSORTMENTS**

100 assorted size pins, No. 00x1 to 6x3, in package.

★ NET PACKAGE, \$1.50

**COMMERCIAL TAPER PINS**

Not Morse. Specify size and quantity. Prices on request.



## MORSE HAND TAPS—Carbon Steel

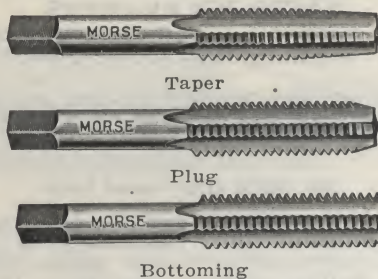


Fig. 1040M. Carbon Steel

Be sure to specify whether Taper, Plug or Bottoming is wanted. U. S. Standard form N. C. (National Coarse) of thread always furnished unless otherwise specified. N. F. (National Fine) is the same as S. A. E. N. S. (National Special) is the same as U. S. Form. Left hand taps are special. Taps 1/8 inch diameter and under have three flutes; 5/32 to 1-1/2 inch diameter have four flutes; and 1-5/8 inch diameter and larger have 6 flutes.

## LIST EACH—NO. 1040M. CARBON

Diameter Inches	Number of Threads to the Inch					List Each	List Per Set
	U. S. Stand- ard N. C.	S. A. E. Stand- ard N. F.	Whit- worth Stand- ard	U. S. Form N. S.	Length, Inches		
1/16	..	..	60	64	1 5/8	\$0.50	\$ 1.50
3/32	..	..	48	48	1 3/4	.40	1.20
1/8	..	..	40	40	1 15/16	.35	1.05
5/32	..	..	32	32, 36	2 1/16	.35	1.05
3/16	..	..	24	24, 32	2 3/8	.40	1.20
1/4	..	..	24	24, 32	2 3/8	.45	1.35
5/16	20	28	20	24, 27, 32	2 1/2	.45	1.35
3/8	18	24	18	20, 27, 32	2 3/4	.50	1.50
7/16	16	24	16	20, 27	2 5/8	.55	1.65
1/2	14	20	14	24, 27	3 5/32	.60	1.80
5/8	13	20	12	12, 24, 27	3 3/8	.70	2.10
3/4	12	18	12	27	3 1/2	.80	2.40
7/8	11	18	11	12, 27	3 13/16	.90	2.70
1	..	..	11	11, 16	4 1/32	1.05	3.15
1 1/8	10	16	10	12, 27	4 1/4	1.20	3.60
1 1/4	9	14	9	12, 18, 27	4 1/2	1.60	4.80
1 1/2	8	14	8	12, 27	5 1/8	2.00	6.00
1 3/8	7	12	7	..	5 1/16	2.25	6.75
1 1/2	7	12	7	..	5 3/4	2.60	7.80
1 5/8	6	12	6	..	6 1/16	3.00	9.00
1 3/4	6	12	6	..	6 3/8	3.50	10.50
1 7/8	..	..	5	5 1/2	6 11/16	4.20	12.60
2	5	..	5	..	7	5.00	15.00
2 1/8	..	..	4 1/2	5	7 5/16	5.80	17.40
2 1/4	4 1/2	..	4 1/2	..	7 3/8	6.70	20.10

## DISCOUNT—CARBON STEEL

1/16 to 7/32	1/4 to 3/8	7/16 to 5/8	11/16 to 1	1-1/8 to 2
50%	35%	30%	25%	5%

## STOVE BOLT TAPS



Fig. 1076M. Carbon Steel

Furnished in plug style only.

Left hand taps, also sizes, lengths and threads not listed are subject to special prices.

High Speed Steel can be furnished, prices on application.

Diam., Inches	Threads Per Inch	List Each	List Per Doz.
3/16	24	\$0.40	\$4.80
1/4	18	.45	5.40
5/16	18	.50	6.00
3/8	16	.55	6.60

**Discounts** { 3/16 In. .... 50% OFF  
                  { 1/4 to 3/8 In. .... 35% OFF

## MORSE HAND TAPS—High Speed Steel

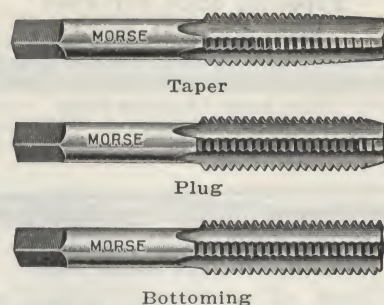


Fig. 2040M. CUT THREAD. High Speed Steel

Fig. 2046M. COMMERCIAL GROUND THREAD. H. S.

Ground threads are ground in angle, on outside and in root of thread, and shank is ground concentric with thread. Sizes 1/4 to 1/2 inch diameter inclusive, 3 flute.

Furnished in Taper, Plug, or Bottoming style.

National (U.S.S.) form of thread furnished unless otherwise specified.

Unless otherwise specified orders for Hand Taps to include 1/8 inch will be filled with Taps having shanks full diameter of thread. When specified we will furnish at regular prices 1/8 inch Hand Taps with shanks smaller than root diameter of thread.

Taps 1/16 inch and larger will be furnished with shanks smaller than root diameter of thread.

Left Hand Taps, also sizes not listed are special.

## LIST PRICES EACH

Diameter of Tap, Inches	Threads To Inch		Whole Length, Inches	High Speed List Each
	N. C. (U.S.S.)	N. F. (S.A.E.)		
1/4	20	28	2 1/2	\$ 0.85
5/16	18	24	2 3/8	.95
3/8	16	24	2 5/8	1.10
7/16	14	20	3 1/8	1.30
1/2	13	20	3 3/8	1.55
9/16	12	18	3 1/2	1.85
5/8	11	18	3 3/4	2.20
11/16	11	16	4 1/8	2.60
3/4	10	16	4 1/4	3.10
7/8	9	14-18	4 1/2	4.35
1	8	14	5 1/8	5.75
1 1/8	7	12	5 7/8	7.45
1 1/4	7	12	5 3/4	9.55
1 3/8	6	12	6 1/8	11.95
1 1/2	6	12	6 3/8	14.75

## DISCOUNTS—High Speed Steel

2040M. Cut Thread, 1/4 to 9/16 In. .... 40% OFF

2040M. Cut Thread, 5/8 to 1-1/2 In. .... 25% OFF

2046M. Commercial Ground Thread ... 25% OFF

## MORSE PULLEY TAPS

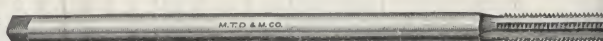


Fig. 1081M. Carbon Steel—Cut Thread.

Fig. 2081M. High Speed Steel—Cut Thread.

SPECIFY LENGTH DESIRED. Left hand taps, also sizes, lengths and threads not listed, prices on request. Furnished in plug style only.

## LIST EACH

Dia. Threads Tap & to 1/2 inch 1081M	N. C. Carbon Steel	2081M High Speed Steel	Dia. Threads Tap & to 1/2 inch 1081M	N. C. Carbon Steel	2081M High Speed Steel
1/4=6	20	\$0.65	1/2=6	13	\$0.95
1/4=8	20	\$0.70	1/2=8	13	\$1.05
5/16=6	18	\$0.70	1/2=10	13	\$1.10
5/16=8	18	\$0.75	1/2=12	13	\$1.15
3/8=6	16	\$0.80	5/8=6	11	\$1.10
3/8=8	16	\$0.85	5/8=8	11	\$1.35
3/8=10	16	\$0.90	5/8=10	11	\$1.40
7/16=6	14	\$0.85	5/8=12	11	\$1.50
7/16=8	14	\$0.95	5/8=14	11	\$1.65
7/16=10	14	\$1.00	3/4=10	10	\$1.85
7/16=12	14	\$1.05	3/4=12	10	\$1.95
			3/4=14	10	\$2.00

**DISCOUNT** { 1081M Carbon Steel ... 15% OFF  
                  { 2081M High Speed Steel 30% OFF



## MORSE MACHINE SCREW TAPS



Fig. 1066M. Carbon Steel.

Fig. 2066M. High Speed Steel. CUT THREAD.  
2068M. High Speed Steel. GROUND THREAD.

C. (National Coarse) is the same as U. S. S.

F. (National Fine) is the same as S. A. E.

S. (National Special) is the same as U. S. Form.

EACH. 2066M. HIGH SPEED. CUT THREAD.

EACH. 2068M. COMMERCIAL. GROUND THREAD.

Sizes 4 to 6 furnished with three flutes; Sizes No. 8 and larger regularly furnished with four flutes. Sizes and dimensions not listed, and left hand taps special.

Basic Major Diam., Inches	Threads To Inch, N.C.	Threads To Inch, N.F.	Threads To Inch, N.S.	Length Full Thread, Inches	Whole Length, Inches	High Speed List Each
.112	40	48	36	$\frac{9}{16}$	$1\frac{7}{8}$	\$.70
.125	.....	.....	40	$\frac{5}{8}$	$1\frac{15}{16}$	.70
.138	32	.....	.....	$1\frac{1}{16}$	2	.70
.138	.....	40	.....	$1\frac{1}{16}$	2	.70
.164	32	.....	.....	$\frac{3}{4}$	$2\frac{1}{8}$	.70
.164	.....	36	.....	$\frac{3}{4}$	$2\frac{1}{8}$	.70
.190	24	32	.....	$\frac{7}{8}$	$2\frac{3}{8}$	.75
.216	24	.....	.....	$1\frac{5}{16}$	$2\frac{3}{8}$	.80
.216	.....	28	.....	$1\frac{5}{16}$	$2\frac{3}{8}$	.80
.242	.....	.....	20, 24	1	$2\frac{1}{2}$	.85

## DISCOUNTS, High Speed Steel

2066M. CUT THREAD, High Speed....40% OFF

2068M. COMMERCIAL GROUND

THREAD .....20% OFF

## SPIRAL POINTED HAND TAPS

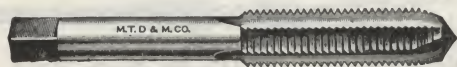


Fig. 1045M. Carbon Steel

Fig. 2045M. High Speed CUT THREAD.

2047M. H. S. COMMERCIAL GROUND THREAD.

Furnished in plug style only.

Round threads only are ground in angle, on outside in root of thread and shank is ground concentric to thread.

Orders for spiral pointed hand taps to and including  $\frac{3}{4}$  inch will be filled with taps having shanks diameter of thread. Taps  $\frac{3}{4}$  inch and larger will be furnished with shanks smaller than root diameter thread.

$\frac{1}{2}$  inch spiral pointed hand taps with shanks smaller than root diameter of thread furnished at regular prices.

Sizes, lengths and threads not listed are subject to special prices. Left hand taps are special.

C. (National Coarse) is the same as U. S. S.

F. (National Fine) is the same as S. A. E.

S. (National Special) is the same as U. S. Form.

## LIST PRICES EACH

Threads To Inch, N.C. (U.S.S.)	Threads To Inch, N.F. (S.A.E.)	Number of Flutes	Length Overall, Inches	Carbon Steel 1045M	High Speed List Each
40	U.S.F.(N.S.)	2	$1\frac{15}{16}$	\$0.45	.....
24 & 32	U.S.F.(N.S.)	2	$2\frac{3}{8}$	\$0.50	.....
20	28	2	$2\frac{1}{2}$	\$0.55	\$0.95
18	24	2	$2\frac{29}{32}$	.60	1.05
16	24	3	$2\frac{15}{16}$	.70	1.25
14	20	3	$3\frac{5}{32}$	.75	1.45
13	20	3	$3\frac{3}{8}$	.85	1.70
12	18	3	$3\frac{19}{32}$	1.00	2.05
11	18	3	$3\frac{15}{16}$	1.10	2.40
10	16	3	$4\frac{1}{4}$	1.45	3.35

## DISCOUNTS

2045M. Carbon Steel,  $\frac{1}{8}$  and  $\frac{3}{16}$  inch.50% OFF

2045M. Carbon Steel,  $\frac{1}{4}$  to  $\frac{3}{8}$  inch....35% OFF

2045M. Carbon Steel,  $\frac{7}{16}$  to  $\frac{5}{8}$  inch....30% OFF

2045M. Carbon Steel,  $\frac{3}{4}$  inch.....25% OFF

2045M. CUT THREAD, High Speed Steel

$\frac{1}{4}$  to  $\frac{9}{16}$  inch.....40% OFF

$\frac{5}{8}$  and  $\frac{3}{4}$  inch.....25% OFF

2047M. COMMERCIAL GROUND THREAD,

High Speed Steel, All Sizes.....25% OFF

## NO. 1066M. CARBON STEEL

Plug taps are furnished unless otherwise specified. Unless otherwise specified Machine Screw Taps up to and including No. 6 will be furnished with three flutes; No. 8 and larger with four flutes. Sizes, lengths and threads not listed are subjected to special prices. Left hand taps are special.

Two Fluted Taps. Furnished in plug and bottoming style only, up to No. 14 inclusive. Taper Two Fluted Taps; and No. 16 Two Fluted Taps and larger are special.

Three Fluted Taps. Furnished in taper, plug or bottoming style up to No. 6 inclusive, and in plug or bottoming style only No. 8 and larger. Taper Three Fluted Taps, No. 8 and larger are special.

Four Fluted Taps. Furnished in taper, plug or bottoming style in No. 8 and larger. All others are special.

Size of Screw Gauge No.	Approx. Diameter of Tap, Inches	No. of Threads Per Inch, A.S.M.E.			Whole Length, Inches	List Each
		N.C.	N.F.	N.S.		
0	.060	..	80	..	$1\frac{5}{8}$	\$0.50
1	.073	64	72	56	$1\frac{11}{16}$	.50
2	.086	56	64	..	$1\frac{3}{4}$	.45
3	.099	48	56	..	$1\frac{13}{16}$	.40
4	.112	40	48	32, 36	$1\frac{7}{8}$	.40
5	.125	40	44	36	$1\frac{15}{16}$	.35
6	.138	32	40	36	2	.35
8	.164	32	36	30, 40	$2\frac{1}{8}$	.35
10	.190	24	32	28, 30	$2\frac{3}{8}$	.40
12	.216	24	28	32	$2\frac{3}{8}$	.45
14	.242	..	..	20, 24	$2\frac{1}{2}$	.45

## Discount

{No. 12 and smaller...50% OFF  
{No. 14 and larger....35% OFF

## SPIRAL POINTED MACHINE SCREW TAPS

## TWO FLUTED

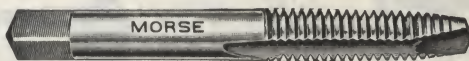


Fig. 1067M Carbon Steel

Fig. 2067M. CUT THREAD. High Speed Steel.

Fig. 2070M. H. S. COMMERCIAL GROUND THREAD.

Spiral Pointed Machine Screw Taps are furnished in plug style only. Sizes, lengths, and threads not listed are subject to special prices.

N. C. (National Coarse) is the same as U. S. S.

N. F. (National Fine) is the same as S. A. E.

N. S. (National Special) is the same as U. S. Form.

## LIST EACH

Screw Gauge No.	Basic Major Diam., Inches	Threads To Inch, N.C.	Threads To Inch, N.F.	Threads To Inch, N.S.	Whole Length, Inches	Carbon Steel 1067M	High Speed List Each
3	.099	48	56	.....	$1\frac{13}{16}$	\$0.60	.....
4	.112	40	48	36	$1\frac{7}{8}$	.50	\$0.80
5	.125	40	44	.....	$1\frac{15}{16}$	.45	.80
6	.138	32	.....	.....	2	.45	.80
6	.138	.....	40	.....	2	.45	.80
8	.164	32	.....	.....	$2\frac{1}{8}$	.45	.80
8	.164	.....	36	.....	$2\frac{1}{8}$	.45	.80
10	.190	24	32	.....	$2\frac{3}{8}$	.50	.85
12	.216	24	.....	.....	$2\frac{3}{8}$	.55	.90
12	.216	.....	28	.....	$2\frac{3}{8}$	.55	.90
14	.242	.....	.....	20	$2\frac{1}{2}$	.55	.95
14	.242	.....	.....	24	$2\frac{1}{2}$	.55	.95

## DISCOUNTS

1067M. Carbon Steel, No. 3 to No. 12.50% OFF

1067M. Carbon Steel, No. 14.....35% OFF

2067M. CUT THREAD,

High Speed Steel.....40% OFF

2070M. COMMERCIAL GROUND THREAD,

High Speed Steel, All Sizes.....20% OFF



## MORSE PIPE TAPS — American Standard, N.P.T.



TAPER PIPE TAP

Fig. 1115M. Carbon Steel

2115M. CUT THREAD, High Speed. 2118M. CUT THREAD, High Speed.

American Standard (N. P. T.) Right Hand Pipe Taps are furnished unless otherwise specified. Write for prices of Left Hand Pipe Taps.

High Speed Steel Pipe Taps will be regularly furnished in American Standard (N. P. T.) Taper right hand only. All other High Speed Pipe Taps are special and subject to special prices.



STRAIGHT PIPE TAP

Fig. 1118M. Carbon Steel

## LIST PRICES EACH

Nominal Size, Inches	Threads to Inch	Diameter of Shank, Inch	Size of Square, Inch	Whole Length, Inches	1115M Taper Carbon Steel	1118M Straight Carbon Steel	2115M Taper Thread H.S.	2118M Straight Thread H.S.
1/8	27	.312	.234	2 1/8	\$1.00	\$1.00	\$ 1.60	\$1.60
1/8	27	.437	.328	2 1/8	1.00	1.00	1.60	1.60
1/4	18	.562	.421	2 1/8	1.20	1.20	1.80	1.80
3/8	18	.700	.531	2 1/8	1.60	1.60	2.30	2.30
1/2	14	.875	.651	3 1/8	2.00	2.00	4.40	4.40
3/4	14	.906	.679	3 1/4	2.80	2.80	6.10	6.10
1	11 1/2	1.125	.843	3 3/4	4.40	4.40	9.20	9.20
1 1/4	11 1/2	1.312	.984	4	5.00	5.00	13.10	....
1 1/2	11 1/2	1.500	1.125	4 1/4	6.60	6.60	17.70	....
2	11 1/2	1.875	1.406	4 1/2	10.00	10.00	24.00	....
2 1/2	8	2.250	1.687	5 1/2	15.00	....	....	....
3	8	2.625	1.968	6	22.50	....	....	....

## DISCOUNTS—CARBON STEEL

1115M TAPER 1118M STRAIGHT

1/8 to 1 Inch.....60% OFF

1 1/4 to 2 Inch.....50% OFF

2 1/2 and 3 Inch.....40% OFF

## HIGH SPEED STEEL

Fig. Kind Thread Discount

2115M Taper CUT.....40%

2118M Taper COMMERCIAL.....15%

2118M Straight CUT.....40%

2123M Straight COMMERCIAL.....15%

## MORSE SOLID BOLT DIES



Fig. 1165M

2-1/2 inches square, U. S. Std. (N. C.) form of thread furnished. Sizes and threads not listed, and left hand are special.

Cutting Size, Inches	Number of Threads to Inch, N.C.	Thickness, Inches	LIST EACH
1/4	20	1/2	\$1.80
5/16	18	1/2	\$1.80
3/8	16	1/2	\$1.80
7/16	14	1/2	\$1.80
1/2	13	3/4	\$1.80
9/16	12	3/4	\$1.90
5/8	11	3/4	\$2.00
3/4	10	3/4	\$2.20
7/8	9	3/4	\$2.40
1	8	1	\$2.70
1-1/8	7	1	\$3.00
1-1/4	7	1	\$3.30

DISCOUNT .....30% OFF

## MUELLER PIPE REAMER.



Fig. 1468

Ratchet Reamer. So constructed that the strain is divided into half a dozen bearings, greatly increasing the durability of the tool.

For 1/8 to 1 1/4 in. pipe. ★ NET EACH, \$4.00

For 1/4 to 3 in. pipe. ★ NET EACH, \$6.00

## OK BURRING REAMERS

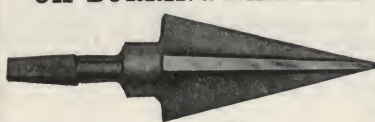


Fig. 4835

Drop-forged, for pipe or thin metal reaming jobs. Bit brace style.

Size No.	For Pipe Inches	Diam. Large Point	★ NET EACH
21	1/4 to 1-1/4	1/4 1-15/32	★
22	1/4 to 2	1/4 2-17/64	\$0.90

## BURRING REAMERS

## Spiral Flute



Fig. No. 2586 Bit Brace



Fig. No. 2588 Tee Handle



Fig. No. 2587 Half Round

No.	Capacity of Pipe, Inches	Style of Shank	List Each	List per Dozen
241	1/8 to 1/2	Bit Brace	\$1.00	\$12.00
242	1/4 to 1	Bit Brace	1.25	14.00
242 1/2	1/4 to 1 1/4	Bit Brace	1.50	17.00
233	1/4 to 1 1/4	1/2 Round	1.50	17.00
244	1/4 to 2	Bit Brace	3.00	36.00
246	1/2 to 2	T Handle	4.00	48.00

DISCOUNT .....20% OFF

## GREENFIELD REPAIRMAN'S

## TAPER REAMERS

For enlarging holes in thin metals and other materials. Round shank can be used with electric drills. Size 135 has 3/8 inch shank. Size 136 has 1/2 inch shank.

Mfrs. Size	Diam. Small End	Diam. Large End	Length, Inches	List Each
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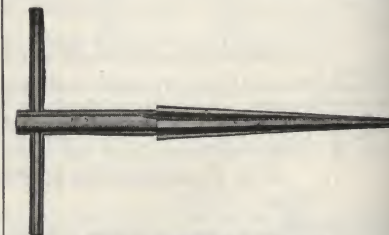
2711B Bit Brace Shank

5	1-8	1-2	5 1/2	\$1.00
6	3-8	1	6 1/2	\$1.50



2711S Straight Round Shank

135	1-8	1-2	5 1/2	\$1.00
136	3-8	1	6 1/2	\$1.50



2711T T-Handle Shank

No need for bit brace or holder. 5T 1/8 1/2 5-1/2 \$1.00

DISCOUNT .....25% OFF



Fig. 1050M. Carbon Steel. High Speed Prices on Request.

## LIST PRICES EACH

Tap Diam. Inch	1050M Carbon Steel LIST EACH	2050M H.S. Cut Thread LIST	Threads to the Inch, N.C. (U.S.S.)	Threads to the Inch, N.F. (S.A.E.)	Length of Thread, N.C. (U.S.S.)	Length of Thread, N.F. (S.A.E.)	Whole Length, Inches	Tap Diam. Inch	1050M Carbon Steel LIST EACH	2050M H.S. Cut Thread LIST	Threads to the Inch, N.C. (U.S.S.)	Threads to the Inch, N.F. (S.A.E.)	Length of Thread, N.C. (U.S.S.)	Length of Thread, N.F. (S.A.E.)	Whole Length, Inches
1/4	\$0.60	\$1.50	20	28	1-5/8	1-1/4	5	9/16	\$1.15	\$3.35	12	18	2-3/4	2	7-1/2
5/16	\$0.70	\$1.70	18	24	1-13/16	1-3/8	5-1/2	5/8	\$1.35	\$4.05	11	18	3	2	8
3/8	\$0.80	\$2.00	16	24	2	1-1/2	6	3/4	\$1.85	\$5.65	10	16	3-1/4	2-1/2	9
7/16	\$0.90	\$2.40	14	20	2-3/8	1-3/4	6-1/2	7/8	\$2.45	\$7.90	9	14	3-5/8	2-3/4	10
1/2	\$1.00	\$2.70	13	20	2-1/2	1-7/8	7	1	\$3.15	\$10.55	8	14	4	3	11

## DISCOUNT

{ 1050M Carbon Steel .....20% OFF  
 { 2050M Cut Thread, High Speed Steel.....15% OFF

## MORSE MACHINE OR NUT TAPS

U. S. form of thread always furnished unless otherwise specified. Left hand taps are special. Prices on sizes 1-1/8 to 2-1/2 on application.



# MORSE ROUND ADJUSTABLE DIES AND STOCKS

Left hand dies are special. Sizes and threads not listed are special and subject to special prices.

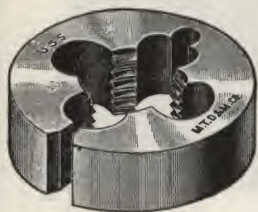
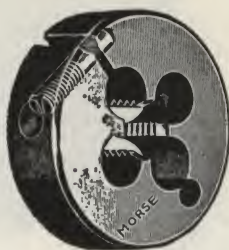


Fig. 1183M

Fig. 1184M  
Screw Adjusting

## FRACTIONAL SIZES

American National form of thread furnished unless otherwise specified.

### LIST PRICES EACH

Cutting Size, Inches	N.C. (U.S.S.) Thds. To Inch	N.F. (S.A.E.) Thds. To Inch	N.S. (U.S.F.) Threads To Inch	1 Inch Diam. Fits Stock 23	1 1/16 Inch Diam. Fits Stock 25	1 1/2 Inch Diam. Fits Stock 26	2 1/4 Inch Diam. Fits Stock 30
1/16	..	..	64	...	...	...	...
3/32	..	..	48	...	...	...	...
1/8	..	..	40	.75	...	...	...
5/32	..	..	32, 36	.75	...	...	...
3/16	..	..	24, 32	.75	...	...	...
7/32	..	..	24, 32	.75	...	...	...
1/4	20	28	24, 27, 32	.75	1.25	1.25	...
5/16	18	24	20, 27, 32	.75	1.25	1.25	...
3/8	16	24	20, 27	.75	1.25	1.25	...
7/16	14	20	24, 27	.75	1.25	1.25	...
1/2	13	20	12, 24, 27	...	1.25	1.25	3.00
5/8	12	18	27	...	...	1.25	3.00
3/4	11	18	12, 27	...	...	1.25	3.00
7/8	10	16	11, 16	...	...	...	3.00
1	9	14	12, 27	...	...	...	3.00
	8	14	12, 27	...	...	...	3.00

**DISCOUNT** ..... 5% OFF

## MACHINE SCREW SIZES

Size of Screw Gauge	Number of Threads Per Inch, A.S.M.E.			5/8 Inch Diam. List Each	1 Inch Diam. List Each
	N.C.	N.F.	N.S.		
0	..	80	....	\$0.80	....
1	64	72	56	.80	....
2	56	64	....	.70	....
3	48	56	....	.60	....
4	40	48	32, 36	.50	....
5	40	44	36	.50	....
6	32	40	36	.50	\$0.75
8	32	36	30, 40	.50	.75
10	24	32	28, 30	.50	.75
12	24	28	32	.50	.75
14	..	..	20, 24	.50	.75

**DISCOUNT** ..... 5% OFF

## PIPE SIZES—American National Standard

For Iron Pipe. 1/4 Inch Taper Each Foot

### LIST PRICES EACH

Cutting Size	Thread	Outside Diameter of Die, In.	
		1	1 1/2
1/8	27	\$0.75	\$1.25
1/4	18	....	1.25
3/8	18	....	1.50

**DISCOUNT** ..... 5% OFF

## MORSE DIE STOCKS For Round Adjustable Dies



Fig. 1180M

Three set screws hold the die. Center screw fits into split in the die. The other two set screws hold the adjustment rigid. Handles on Size 30 screw into the body instead of being solled.

Stocks with guides, prices on application.

Size No.	Holds Dies, Diameter Inches	Length Inches	Fractional Cutting Size Limits	Machine Screw Cutting Size Limits	★ NET EACH Without Dies
21	5/8	5	1/16 to 1/4	0 to 14	\$0.40
23	1	10 1/4	1/8 to 1/2	4 to 18	\$1.00
25	1 1/8	12 1/2	1/4 to 3/4	.....	\$1.25
26	1 1/2	14 1/2	1/2 to 3/4	.....	\$1.25
30	2 1/4	26	3/4 to 1	.....	\$1.75

## MORSE SETS OF ROUND ADJUSTABLE DIES, TAPS AND DIE STOCKS

### Fractional Size Threads

**Set 69.** Contains 5 Dies 1 inch in Diameter and 5 Taps cutting the following Threads: 3/16-24; 1/4-20; 5/16-18; 3/8-16; and 7/16-14. Stock 10 1/4 inches long. No Tap Wrench.

★ NET EACH, \$8.25

**Set 79.** Contains 5 Dies 1 1/16 inch diameter and 5 Taps cutting the following Threads: 1/4-20; 5/16-18; 3/8-16; 7/16-14; and 1/2-13. Stock 12 1/8 inches long. No tap wrench.

★ NET EACH, \$10.50

**Set 102.** Contains 7 Dies, 2 inches in diameter and 7 Taps cutting the following threads: 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13, 5/8-11, 3/4-10. Die stock is 22 inches long.

★ NET EACH, \$20.00

### Machine Screw Threads

**No. 35.** Contains 6 Dies 5/8 inch diameter, and 6 Taps cutting the following Machine Screw Threads: 4-36, 6-32, 8-32, 10-24, 12-24 and 14-20. Stock 5 inches long. Tap Wrench 5 1/8 inches long.

★ NET EACH, \$6.15

**Set 39.** Contains 10 Dies 5/8 inch diameter and 10 Taps cutting the following Machine Screw Threads: 2-56, 3-48, 4-36, 5-36, 6-32, 8-32, 10-32, 10-24, 12-24, 14-20. Stock 5 inches long. Tap Wrench 5 1/8 inches long.

★ NET EACH, \$9.10



Set 39 Illustrated



## LITTLE GIANT SCREW PLATES



Illustrating No. 5 Set. Fig. No. 1438

## N. C. (U. S. STD.) THREADS

Contain one die and one taper tap for each size listed, also stock and tap wrench. The sets with the wider range of sizes have two tap wrenches and two stocks. Each outfit is packed in a fine hardwood case, as shown, with hinged lid. Little Giant dies can be resharpened, when dull, on a thin emery wheel. U. S. Std. Threads furnished regularly.

## LIST PRICES EACH

No.	Cutting Sizes of Dies and Taps	Diam. of Collar, In.	Length of Stock, In.	List Each
1	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ .....	2	14 $\frac{1}{2}$	\$18.50
5	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ ....	2 $\frac{3}{4}$	23	27.50
5 $\frac{1}{2}$	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ ....	2 $\frac{3}{4}$	23	30.75
7	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	2 $\frac{3}{4}$	26	42.00
7 $\frac{1}{2}$	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	2 $\frac{3}{4}$	26	44.25
*8	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ ....	2-2 $\frac{3}{4}$	14 $\frac{1}{2}$ -26	30.00
*9	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	2-2 $\frac{3}{4}$	14 $\frac{1}{2}$ -29	43.50
*40	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1, 1 $\frac{1}{8}$ , 1 $\frac{1}{4}$ .....	2 $\frac{3}{4}$ -4	23-40	68.50

\*These sets have two stocks.

## N. F. (S. A. E.) THREADS

No.	Cutting Sizes of Dies and Taps	Length of Stock, In.	List Each
31	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ .....	14 $\frac{1}{2}$	\$18.50
35	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ ....	26	27.50
*37 $\frac{1}{2}$	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ and 1.	26	44.25

\*Two tap wrenches also included.

## COMBINATION SCREW PLATES—N.C. AND N.F.

No.	Cutting Sizes of Dies and Taps	LIST EACH
310	N.C., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ and $\frac{1}{2}$ ; N.F., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , and $\frac{1}{2}$ inch.	\$29.25
311	N.C., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , and $\frac{3}{4}$ ; N.F., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , and $\frac{3}{4}$ inch.	\$56.00
312	N.C., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ and 1; N.F., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ and 1 inch.	\$79.00

**DISCOUNT 25% OFF**

## LITTLE GIANT SCREW PLATE PARTS

Fig. No. 2577,  
DieFig. No. 2713,  
CapFig. No. 2714,  
Guide

## FIG. 2577—DIES—LIST EACH

Cutting Size, Ins....	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Diameter Collet.....	2	2 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2	2
List Each, Die.....	\$1.00	1.00	1.00	1.00	1.25	1.25	1.25	1.25
Cutting Size, Ins....	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Diameter Collet.....	2 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$
List Each, Die.....	\$1.25	1.50	1.50	1.50	1.75	1.75	2.00	2.00
Cutting Size, Ins....	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	1	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$
Diameter Collet.....	4	2 $\frac{1}{2}$	4	2 $\frac{1}{2}$	4	4	4	4
List Each, Die.....	\$2.00	2.75	2.75	2.75	2.75	4.00	4.00	4.00

## COLLETS AND STOCKS—LIST EACH

Collet and Stock No.	Diameter Inches	Fig. 2713 Cap	Collet Fig. 2714 Guide	Fig. 3874 Complete	Stock Fig. 3875 Length	Each
1	2	.50	.30	.80	14 $\frac{1}{2}$	2.50
5	2 $\frac{3}{4}$	.80	.50	1.30	23	3.50
7	2 $\frac{3}{4}$	.80	.50	1.30	26	3.50
9	2 $\frac{3}{4}$	.80	.50	1.30	29	3.50
20	4	1.50	.75	2.25	41	6.00

Always specify diameter of collet when ordering.

**PRICE.....LIST NET**

## LITTLE GIANT JR. SCREW PLATES

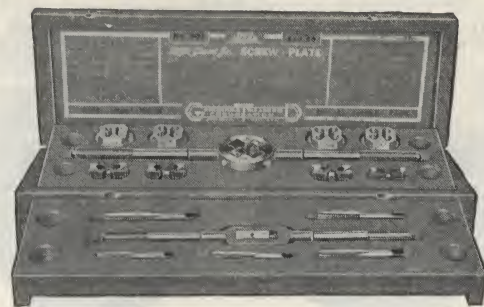


Fig. 4646. Illustrating Set 301.

Contains genuine "Little Giant" Dies, new patented stock, and die clip. The die stock has double slots, which enables each stock to hold 5 sizes of dies. The new patented die clip holds the two halves of the die as one unit. Dies are held in stock with guides, no collets are necessary. With necessary tap wrenches. Hardwood case.

## N. C. (U. S. STD.) THREADS

No.	Cutting Size of Die and Tap, Inch	LIST
301	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$	\$12.50
305	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$	\$18.50
307	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	\$28.50

## N. F. (S. A. E.) THREADS

331	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$	\$12.50
335	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$	\$18.50
337	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	\$28.50

## COMBINATION—N. C. and N.F. THREADS

3310	N.C., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ ; N.F., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$	\$20.00
3311	N.C., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ ; N.F., $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$	\$38.00

**DISCOUNT .....15% OFF**

## CHAMPION ADJUSTABLE DIE AND STOCK SETS



Fig. No. 3675

## N. C.—(U. S. STANDARD) THREAD

Mfrs. No. 1001B Set. 5 sizes,  $\frac{1}{2}$  inch diam. dies, cutting  $\frac{1}{4}$ —20,  $\frac{5}{16}$ —18,  $\frac{3}{8}$ —16,  $\frac{7}{16}$ —14,  $\frac{1}{2}$ —13. U. S. Standard Thread. One stock 14 inches long. All mounted on Board. **★ NET SET, \$4.35**

## N. F.—(S. A. E. STANDARD) THREAD

Mfrs. No. 1001A Set. 5 sizes,  $\frac{1}{2}$  inch diam. dies, cutting  $\frac{1}{4}$ —28,  $\frac{5}{16}$ —24,  $\frac{3}{8}$ —24,  $\frac{7}{16}$ —20,  $\frac{1}{2}$ —20. S. A. E. Standard Thread. One stock 14 inches long. All mounted on Board. **★ NET SET, \$4.35**  
**★ Net Each, \$0.75**

## PUMP MAKER'S STOCKS AND DIES



Fig. 920G, Double Die Stock



Figs. 921G, 922G, 923G, Single Die Stock

## COMPLETE SETS LIST EACH

No.	Cutting Sizes	Style	Length, In.	Weight, Oz.	List Each
920	$\frac{3}{8}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$	Double	14 $\frac{1}{2}$	25	\$4.00
921	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$	Single	16 $\frac{3}{4}$	20	2.50
922	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$	Single	16 $\frac{3}{4}$	20	2.50
923	$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$	Single	16 $\frac{3}{4}$	20	2.50

**DISCOUNT, Stocks .....25% OFF****Extra Dies, Adjustable Round Split.....List Ea., \$1.25****DISCOUNT, Dies .....5% OFF**



MORSE TAP WRENCHES



Nos. 0 and 1. Fig. No. 1145M



Fig. Nos. 2 to F.

No.	List Each	Length, Inches	Holds Taps Cutting	Holds Reamers Cutting	Holds Squares, Inches
0	\$1.60	5 1/8	1/16 to 1/4	1/8 to 1 1/2	1/16 to 3/16
1	2.00	6	1/16 to 5/16	1/8 to 1 5/8	1/16 to 1/4
2	2.50	8 1/2	3/16 to 9/16	3/16 to 1 5/8	1/8 to 5/16
A	3.00	12 3/4	1/4 to 1 1/8	1/4 to 1 1/2	3/16 to 7/16
B	4.00	17 1/8	1/2 to 1 1/8	3/8 to 1 11/16	1/4 to 3/4
C	5.00	23	3/4 to 1 5/8	1 1/16 to 1 3/4	3/8 to 1
D	15.00	45 1/4	1 1/4 to 2 1/16	1 1/16 to 2 1/16	3/4 to 1 1/4
E	47.50	50	1 3/4 to 2 1/2	1 1/2 to 2 1/2	1 to 1 5/8
F	62.50	56	2 1/8 to 3 1/8	2 1/8 to 3	1 1/4 to 2

0 to C...10%      D...5% OFF      E, F...NET

ADJUSTABLE TAP WRENCHES



Fig. No. 3108

Size	Hand Sizes Inch	Machine Screw Sizes	Pipe Sizes Inches	Hand Reamers Inches	Lgth. Inches	LIST EACH
00	1/16-7/32	0-14	...	1/8-17/64	5	\$1.75
0	1/16-1/4	0-14	...	1/8-21/64	7	\$2.00
4	1/16-5/16	0-14	...	1/8-25/64	9	\$3.00
5	5/32-9/16	7-14	1/8	11/64-7/16	11	\$3.50
6	5/32-3/4	7-14	1/8-1/4	11/64-41/64	15	\$4.00
7	1/4-1-1/8	...	1/8-3/4	9/32-29/32	19	\$5.00
7-1/2	1/2-1-3/8	...	1/8-1	3/8-1-5/32	31	\$6.50
8	3/4-1-5/8	...	3/8-1-1/4	37/64-1-11/32	40	\$8.00
22	1-2-1/2	...	3/4-2-1/2	7/8-2-1/8	54	\$15.00
24	1-3/4-4	...	1-1/2-4	1-7/16-3	72	\$25.00

DISCOUNT .....20% OFF

CHAMPION ADJUSTABLE TAP WRENCH



Fig. No. 3674

Mfrs. No. 2. 5/16 to 1/2 inch. Length 10 1/2 inches.

★ NET EACH, \$1.60

TEE HANDLE TAP WRENCHES

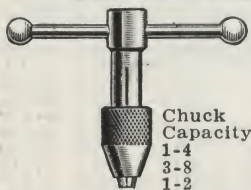


Fig. 3956

For holding taps and hand reamers. Knurled chuck shell. Sliding handle.

Chuck Capacity	Handle Length	Fits Taps	★ NET EACH
1-4	3 1/2	6-32 to 10-32	\$0.25
3-8	4 1/4	1-4	\$0.30
1-2	5	5-16 to 1-2	\$0.40

GTD TAP WRENCHES AND CHUCKS

Fig. 5311



Made from steel carefully selected for its toughness. The chuck jaws are all hardened and tempered, this greatly lengthens the life of the chuck. Simple design, no delicate springs, pins, etc.

Mfrs. No.	Capacity HAND Tap Sizes	MACHINE SCREW Tap Sizes	Length Inches	Weight Ozs.	LIST EACH
T-HANDLE					
329	1/16-9/32	0-18	2-1/2	3	\$0.75
333	7/32-1/2	12-18	3-5/8	8	\$1.25
FOR BIT BRACE-No T-Handle					
334	1/16-9/32	0-18	3-3/4	2	\$0.75
335	7/32-1/2	12-18	4-7/8	6	\$1.25
EXTRA LONG-T-HANDLE					
336	1/16-9/32	0-18	8-3/4	8	\$1.25
337	7/32-1/2	12-18	10-5/8	20	\$1.75

DISCOUNT .....20% OFF

COLLIS MAGIC TYPE QUICK CHANGE DRILL CHUCKS AND COLLETS

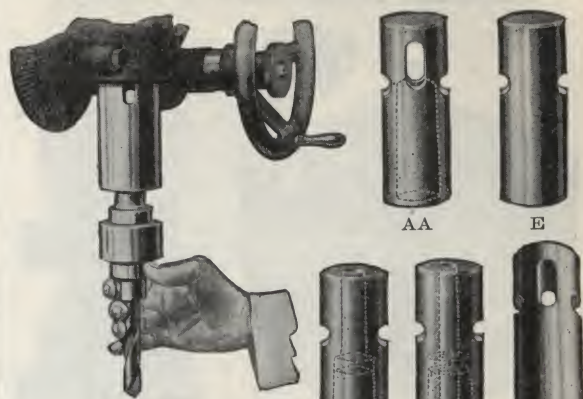


Fig. 4189

Raise collar with thumb, collet and drill drops into hand. Only one hand is required to change tools.

For modern production methods. Gives long and uninterrupted service with accurate operation and refined construction. An efficient quick-change drill chuck. Built for use in the spindle of the drill press, lathe, screw machine, and other revolving spindle machines. For the rapid changing of tools without stopping the machine, and practically converts a single spindle machine into a multiple spindle type with as many holes as you have tools to use. This is made possible by the use of collets for holding various kinds of tools which may be rapidly inserted and withdrawn from the chuck resulting in a material saving to time and consequent increase in production. The factor of safety of balls against crushing is many times the torque strength of the drills, taps, etc. Collets are made of high grade steel and ball race is hardened.

CHUCKS—LIST EACH

SPECIFY TAPER SIZE OF SHANK.

Chuck No.	Standard Taper Size of Shank	Outside Diameter	Inside Diameter	LIST EACH
0	No. 1 and 2	1 1/16	1 1/16	\$ 4.00
1	No. 2-3 and 4	2	1 1/16	\$ 5.00
2	No. 3-4 and 5	2 1/2	1 1/4	\$ 6.50
3	No. 4-5 and 6	3	1 1/16	\$10.00
4	No. 4-5 and 6	3 3/4	2 5/8	\$15.00
5	No. 5 and 6	4 1/16	3 1/4	\$30.00

DISCOUNT .....10% OFF

COLLET EQUIPMENT FOR MAGIC TYPE CHUCKS

“AA” COLLETS. With following Morse taper holes: For Chuck 0—No. 0 and 1; for Chuck 1—No. 0, 1 and 2; for Chuck 2—No. 1, 2 and 3; for Chuck 3—No. 2, 3 and 4; for Chuck 4—No. 3, 4 and 5. SPECIFY MORSE TAPER.

“E” COLLET BLANKS. Are centered and can be drilled for straight shank drills, reamers, taps, etc., (harden in ball sockets before using).

“D” COLLETS. With any size hole for taps, reamers, etc., having square ends up to following sizes: For Chuck 0—to 3/8 inch; for Chuck 1—to 1/2 inch; for Chuck 2—to 3/4 inch; for Chuck 3—to 1 inch; for Chuck 4—to 1 1/2 inch. SPECIFY SIZE OF SQUARE.

“G” COLLETS. With any size hole for following size drills: For Chuck 0—to 5/16 inch; for Chuck 1—to 1/2 inch drill; for Chuck 2—to 3/8 inch drill; for Chuck 3—to 7/8 inch drill; for Chuck 4—to 1 1/4 inch drill. SPECIFY DIAMETER OF HOLE.

“U” COLLETS. With Use-Em-Up type standard taper hole. For using up drills with twisted tangs or broken shanks. Grind a flat on remaining portion of drill shank. With Morse taper hole: For Chuck 0—No. 1; for Chuck 1—No. 1 and 2; for Chuck 2—No. 1, 2 and 3; for Chuck 3—No. 2, 3 and 4; for Chuck 4—No. 3, 4 and 5. SPECIFY MORSE TAPER.

COLLETS—LIST EACH—Specify Chuck Number

For Chuck	Style AA	Style E	Style D	Style G	Style U	Outside Diameter
0	\$1.20	\$0.60	\$2.00	\$1.30	\$1.60	1 1/16
1	\$1.30	\$0.80	\$2.25	\$1.50	\$1.80	1 5/16
2	\$1.60	\$1.00	\$2.50	\$1.80	\$2.20	1 1/2
3	\$3.00	\$1.20	\$4.25	\$3.50	\$4.25	1 11/16
4	\$5.00	\$1.75	\$6.00	\$5.25	\$6.75	2 3/8
5	\$7.50	\$2.75	\$8.75	\$8.00	\$9.50	3 1/4

DISCOUNT .....10% OFF



# CUSHMAN CHUCKS

## CUSHMAN INDEPENDENT CHUCKS

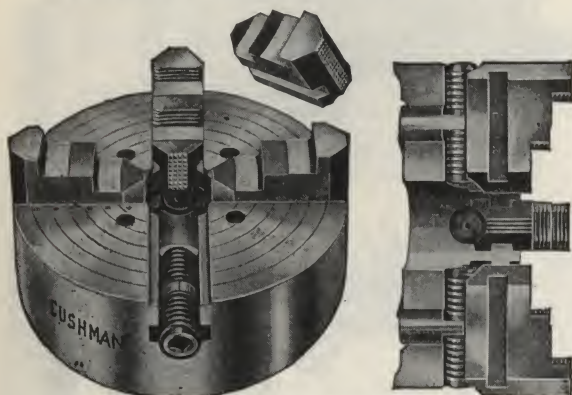


Fig. 4850. Mfrs. 14 and 214 Line

Bodies are heavily reinforced at centers and have wide heavy ribs for jaw bearings. Square cut operating screws threaded entire length. Self-aligning thrust bearings which give 100% thrust area on the screw. Tough, selected alloy steel is used in jaws, screws and thrust bearings.

### WITH 4-JAW SOLID REVERSIBLE JAWS

Size Inches	Approx. Weight Pounds	Mfrs. No. Body	Iron Body LIST EACH	Mfrs. No. Steel Body	Steel Body LIST EACH
4-1/2	10	414	\$41.00	.....	.....
6	18	614	\$48.00	.....	.....
8	41	814	\$56.00	8214	\$92.00
9	47	914	\$60.00	.....	.....
10	67	1014	\$71.00	10214	\$108.00
12	87	1214	\$84.00	12214	\$137.00
14	106	1414	\$92.00	14214	\$156.00
15	123	1514	\$101.00	15214	\$168.00
16	127	1614	\$108.00	16214	\$176.00
18	220	1814	\$140.00	18214	\$212.00
20	246	2014	\$161.00	20214	\$245.00
22	276	2214	\$186.00	22214	\$272.00
24	309	2414	\$209.00	24214	\$306.00
26	370	2614	\$234.00	26214	\$350.00
28	421	2814	\$266.00	28214	\$416.00
30	507	3014	\$330.00	30214	\$486.00
36	638	3614	\$480.00	36214	\$740.00

## CUSHMAN COMBINATION TRI-PLEX SELF CENTERING INDEPENDENT CHUCKS

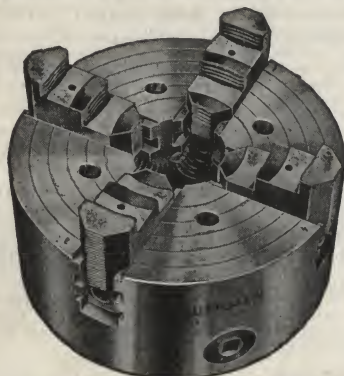


Fig. 4851. Mfrs. 64A Line

Three jaw chucks can be furnished, prices on request.

### WITH FOUR REVERSIBLE JAWS

Size Inches	Approx. Weight Pounds	Mfrs. No. Body	Iron Body LIST EACH	Mfrs. No. Steel Body	Steel Body LIST EACH
6	26	.....	.....	6264A	\$113.00
7-1/2	45	.....	.....	7264A	\$137.00
9	73	964A	\$149.00	9264A	\$200.00
10-1/2	97	1064A	\$164.00	10264A	\$221.00
12	134	1264A	\$188.00	12264A	\$260.00
15	197	1564A	\$240.00	15264A	\$320.00
18	305	1864A	\$458.00	18264A	\$548.00
21	395	2164A	\$548.00	21264A	\$675.00
24	530	2464A	\$660.00	24264A	\$825.00

**DISCOUNT**

## CUSHMAN SELF-CENTERING GEARED SCROLL 3-JAW CHUCKS

All steels used in the jaws, scrolls and pinions are of selected alloy steel and properly heat treated. 4 jaw chucks can be furnished, prices on request.

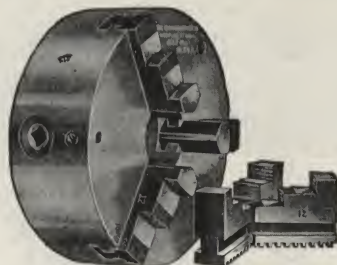


Fig. 4852. Mfrs. 34A Line

### WITH BOTH STYLE 1 EXTERNAL GRIP JAWS AND STYLE 2 INTERNAL GRIP JAWS

Size Inches	Approx. Weight Pounds	Mfrs. No. Iron Body	Iron Body LIST EACH	Mfrs. No. Steel Body	Steel Body LIST EACH
3	3	.....	.....	3234A	\$44.00
4	8	.....	.....	4234A	\$50.00
5	12	.....	.....	5234A	\$54.00
6	20	.....	.....	6234A	\$62.00
7-1/2	32	734A	\$72.00	7234A	\$104.00
9	62	934A	\$86.00	9234A	\$128.00
10-1/2	77	1034A	\$96.00	10234A	\$140.00
12	110	1234A	\$113.00	12234A	\$168.00
15	159	1534A	\$161.00	15234A	\$224.00

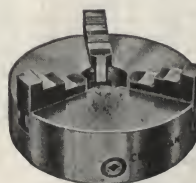


Fig. 4853

### Style 1 EXTERNAL GRIP Mfrs. 31A Line

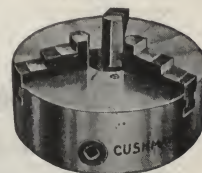


Fig. 4854

### Style 2 INTERNAL GRIP Mfrs. 32A Line

Size Inches	Style 1 Jaw Iron Body	Style 2 Jaw Iron Body	Iron Body LIST EACH	Style 1 Jaw Steel Body	Style 2 Jaw Steel Body	Steel Body LIST EACH
3	.....	.....	.....	3231A	3232A	\$38.00
4	.....	.....	.....	4231A	4232A	\$44.00
5	.....	.....	.....	5231A	5232A	\$48.00
6	.....	.....	.....	6231A	6232A	\$54.00
7-1/2	731A	732A	\$62.00	7231A	7232A	\$62.00
9	931A	932A	\$74.00	9231A	9232A	\$74.00
10-1/2	1031A	1032A	\$84.00	10231A	10232A	\$84.00
12	1231A	1232A	\$98.00	12231A	12232A	\$98.00
15	1531A	1532A	\$140.00	15231A	15232A	\$140.00

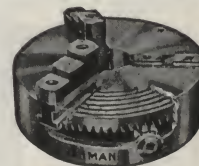


Fig. 4855. Mfrs. 36A Line

### WITH REVERSIBLE TOP JAWS

Size Inches	Approx. Weight Pounds	Mfrs. No. Iron Body	Iron Body LIST EACH	Mfrs. No. Steel Body	Steel Body LIST EACH
7-1/2	33	736A	\$72.00	7236A	\$104.00
9	57	936A	\$86.00	9236A	\$128.00
10-1/2	71	1036A	\$96.00	10236A	\$140.00
12	100	1236A	\$113.00	12236A	\$168.00
15	146	1536A	\$161.00	15236A	\$224.00
18	245	1836A	\$285.00	18236A	\$375.00
21	327	2136A	\$375.00	21236A	\$503.00
24	428	2436A	\$488.00	24236A	\$645.00

**20% OFF**



Fig. 4190



## JACOBS DRILL CHUCKS

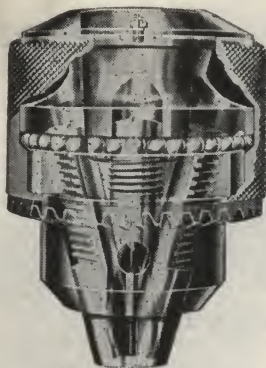


Fig. No. 2860

### Super Ball Bearing

For all machine purposes. The elimination of friction by the use of ball bearings makes this chuck easy to operate. For ordinary drilling it may be tightened by hand. Only a slight pressure on the spiral gear key is required for the heaviest drilling. Taper model.

#### CHUCK—LIST EACH

No.	Capacity Inches	LIST EACH
8-1/2	0-1/4	\$6.00
9	0-5/16	\$7.00
11	0-3/8	\$8.00
14	0-1/2	\$10.00
16	1/2-5/8	\$12.50
18	5/8-3/4	\$15.00
20	3/4-1	\$20.00

#### PARTS LIST EACH

No.	Key	Jaws & Nuts	Sleeves	Balls Set
8-1/2	\$0.40	\$2.25	\$0.60	\$0.30
9	\$0.40	\$2.75	\$0.75	\$0.45
11	\$0.40	\$3.00	\$0.75	\$0.45
14	\$0.50	\$3.25	\$0.90	\$0.60
16	\$0.75	\$4.25	\$1.20	\$0.75
18	\$0.75	\$5.25	\$1.50	\$0.75
20	\$1.25	\$7.50	\$2.25	\$0.90

### DISCOUNTS

Taper Arbors. For drilling machines, lathes, etc.

No.	Size at Large End	List Each
1	1/2 in.	\$0.80
2	3/4 in.	.80
3	1 in.	1.20
4	1 1/4 in.	2.00

DISCOUNT... 25% OFF

### ETTCO KEYLESS ALL HARDENED DRILL CHUCK

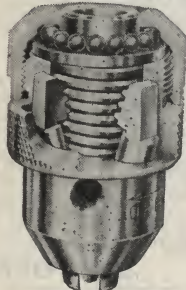


Fig. No. 3083

All hardened parts, self centering, lighter weight, without sacrificing strength, keyless, ball bearing, continuous grip. Hand operated and will not chew up drill shanks. This tool is absolutely guaranteed to give entire satisfaction and any defective parts will be replaced any time within one year.

A taper arbor is supplied with each chuck and is charged for in addition to the chuck as shown below. Please specify which Morse Taper is desired, when ordering.

No. 1A.	Capacity 0 to 1/4 inch.....	List Each, \$5.50
No. 1 1/2 A.	Capacity 0 to 5/16 inch.....	List Each, \$6.00
No. 2A.	Capacity 0 to 3/8 inch.....	List Each, \$6.50
No. 3A.	Capacity 0 to 1/2 inch.....	List Each, \$9.00
No. 3 1/2 A.	Capacity 1/2 to 5/8 inch.....	List Each, \$11.00

DISCOUNT..... 10% OFF

#### TAPER SHANK ARBORS FOR DRILL CHUCKS

When ordering Arbors specify name and No. of Chuck for which the Arbor is required.

No. 1 Morse Taper Shank.....	List Each, \$1.00
No. 2 Morse Taper Shank.....	List Each, \$1.00
No. 3 Morse Taper Shank.....	List Each, \$1.50
No. 4 Morse Taper Shank.....	List Each, \$2.50

DISCOUNT..... 10% OFF



Fig. No. 1595

### Plain Bearing

Light, balanced models for sensitive drilling. Increased grip and fast operation is assured by method of thread generation. Hardened body and strong parts. Key operation provides easy tightening and release without rotation of the spindle. For tapered arbors and spindles.

#### Model Capacity LIST EACH

Model	Capacity	LIST EACH
1A	0 to 1/4	\$4.50
2A	0 to 3/8	\$5.50
33	1/16 to 1/2	\$6.50
7	0 to 1/4	\$4.50
30	0 to 5/16	\$5.50
32	0 to 3/8	\$5.50
34	0 to 1/2	\$7.50
3A	0 to 17/32	\$9.00
3A	1/8 to 5/8	\$9.00
36	3/16 to 3/4	\$12.00

#### PARTS — LIST EACH

Specify model and part required.	Keys	Jaws & Nuts	Sleeves
1A=7	\$0.30	\$1.75	\$0.50
Model	\$0.40	\$2.25	\$0.60
2A=30=32	\$0.40	\$2.25	\$0.60
33	\$0.40	\$2.50	\$0.60
34	\$0.50	\$2.75	\$0.90
3=3A	\$0.50	\$3.25	\$0.90
36	\$0.75	\$4.25	\$1.20

1 to 5  
25% OFF

6 to 11  
25-5% OFF

12 or More  
30% OFF

### ARBORS FOR DRILL CHUCKS



Fig. No. 3505

SPECIFY when ordering the MAKE, STYLE, and NUMBER of the arbor and the MODEL NUMBER OF THE CHUCK it is to fit.

Straight Shank Arbors. For blacksmiths' drills, etc.

Size Inches	List Each
1/2	\$0.75
3/4	.75

DISCOUNT... 25% OFF

### ALMOND GEARED NUT DRILL CHUCKS

SPECIFY: Arbor holes either Taper or Threaded. CHUCK WITH KEY — ★ NET EACH

Mfrs. Size No.	Capacity Inches	Diameter Inches	Length Inches	Approx. Weight Pounds	★ NET EACH
50	0 to 3/16	1-3/16	1-1/2	1/4	\$3.00
62	0 to 1/4	1-3/8	1-3/4	1/2	\$3.00
21	0 to 5/16	1-3/4	2-1/16	7/8	\$3.50
7	0 to 3/8	1-7/8	2-5/16	1-1/3	\$3.50
34	0 to 1/2	2-3/32	2-5/8	1-3/4	\$4.50
88	9/64 to 5/8	2-3/8	2-5/8	2	\$4.50
109	5/32 to 3/4	2-1/2	3-3/8	3	\$6.00
111	3/8 to 1	3-3/8	4-3/4	5-5/8	\$7.00

#### PARTS — ★ NET EACH

Size Ins.	Set of 3 Jaws	Geared Nut	Ferrule	Key (Pinion)
3/16	\$1.50	\$0.50	\$0.50	\$0.30
1/4	\$1.50	\$0.50	\$0.50	\$0.30
5/16	\$1.50	\$0.50	\$0.50	\$0.40
3/8	\$1.50	\$0.50	\$0.50	\$0.40
1/2	\$2.70	\$0.65	\$0.65	\$0.50
5/8	\$2.70	\$0.65	\$0.65	\$0.50
3/4	\$3.00	\$1.25	\$1.25	\$0.75
1	\$3.50	\$1.50	\$1.50	\$0.75



Fig. 4858



# WAHLSTROM FULL-AUTOMATIC DRILL CHUCKS

## MODEL A

Fig. 5150

At high speed, drills can be changed without stopping the spindle. A slight grip on the sleeve holds it stationary while changing drills. Jaws automatically grips shank as pressure is applied thus eliminating slippage. A down motion opens jaws. An up motion closes jaws around shank of drill with NO MARRING of shanks. Tapered shell permits visibility. For straight shank drills.



## MODEL B

### FOR STRAIGHT SHANK DRILLS

Fig. 5151

Quick change chuck for straight shank tools. Slight pressure on shell will open jaws to their maximum without stopping the spindle. One chuck will do the work of ten spindles without additional accessories. When using taps grind three flats on shank for backing out.



## MODEL C

### FOR MORSE TAPER SHANKS ONLY

Fig. 5152

Hold tools without or with tangs with No. 1, 2, 3 Morse Taper Shank. Capacity 1/16 to 1-1/4 inch drills. No collets, no sockets, no adapters, nor other appliances are required for driving taper shank drills. Self-centering. High holding power of the jaws.



Mfrs. No.	Capacity Inches	Morse Taper Shank	★ NET EACH
8-13-10	1/64 to 3/8	No. 1	\$11.00
8-13-11	1/64 to 3/8	No. 2	\$11.00
8-14-10	1/32 to 1/2	No. 1	\$14.00
8-14-11	1/32 to 1/2	No. 2	\$14.00
8-14-12	1/32 to 1/2	No. 3	\$14.00

Mfrs. No.	Capacity Inches	Morse Taper Shank	★ NET EACH
28-16-10	15/64 to 1/2	No. 1	\$12.00
28-16-11	15/64 to 1/2	No. 2	\$12.00
28-16-14	15/64 to 1/2	No. 3	\$12.00
28-18-10	3/8 to 3/4	No. 2	\$15.00
28-18-11	3/8 to 3/4	No. 3	\$15.00
28-18-12	3/8 to 3/4	No. 4	\$15.00
28-19-10	17/32 to 1	No. 3	\$20.00
28-19-11	17/32 to 1	No. 4	\$20.00

Three seconds required for tool change, and no loss of time for setting up before starting the job.

Mfrs. No.	Capacity Morse Taper Shank	Morse Taper Shank	★ NET EACH
28-22-10	Nos. 1-2-3	No. 3	\$17.00
28-22-11	Nos. 1-2-3	No. 4	\$17.00

# THE NEW WAHLSTROM FULL-AUTOMATIC TAPPER

A light sturdy tapper, highly sensitive, and smooth operating. Friction cones and plates are eliminated. The tap is never in a reverse when starting to tap. It does not float but is in power when ready to tap. The first thread will start perfectly because the tapper is in proper cutting motion and eliminates excessive tap spoilage. Permits bottom tapping. At the slightest upward motion of pressure handle, the reverse action operates. Equipped with safety slip clutch.

Fig. 5153

Mfrs. No.	Capacity Nos.	Inch	Morse Taper Shank	★ NET EACH
28-50-30	2/56 to 1/4		No. 1	\$39.00
28-50-31	2/56 to 1/4		No. 2	\$39.00
28-38-40	5/40 to 1/2		No. 2	\$66.00
28-38-41	5/40 to 1/2		No. 3	\$66.00
28-44-30	3/8 to 1		No. 3	\$125.00
28-44-31	3/8 to 1		No. 4	\$125.00



## ETTCO "SENSITIVE" HIGH SPEED TAPPING ATTACHMENT

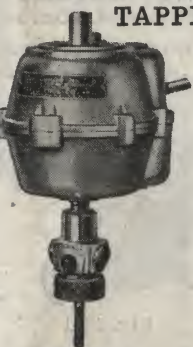


Fig. 3467

Fits into the ordinary drill press, providing an automatic reverse at 1-3/4 to 1. All friction clutch driven.

Power is regulated by pressure on the drill press lever. If pressure is stopped, or tap sticks or hits bottom, the clutches slip and save the tap or a stripped thread.

All Ettco Tappers have been redesigned with ball bearings and helical gears for much higher speeds. The taps idle "forward" or "in"—not in reverse—to save tap wear and reamed holes at high speed.

Complete with Ettco Tap Holding Chuck and Morse Taper Shank.

No. 100 and 200 Ettco-Emrick Tappers for Small Taps. For very high speed manufacturing. Ball bearing spindles, helical gears, asbestos-carbon clutches, all RUNNING IN OIL.

No. 1-B and 2-B Ettco-Emrick Tappers for Medium Taps. Ball bearings and helical gears. Improved leather on cast iron clutches. Take the place of the ETTCO No. 1 and 2.

No. 3, 4 and 5 Ettco Tappers for Large Taps. No. 3 is a special geared tapper for heavy tapping on light drill presses. No. 4 and 5 use an amplified pressure multiple disc clutch and a shockless positive reverse.

Size	Cap. in Steel	Cap. in Cast Iron	P.T. Cap. Ins.	Morse Taper Shank	Wght. Lbs.	LIST PRICE
No. 100	1/8	1/8	...	1 or 2	4	\$40.00
No. 200	3/16	3/16	...	1 or 2	4-1/2	\$45.00
No. 1-B	1/4	5/16	...	1 or 2	5-1/2	\$38.00
No. 2-B	3/8	1/2	1/8	2 or 3	8-1/2	\$55.00
(Special)	1/2	5/8	1/8	2	11-1/2	\$85.00
	5/8	11/16	1/4	2, 3, 4	12	\$80.00
	3/4	1"	1/2	3 or 4	20	\$95.00

DISCOUNT, 2-B, 3, 4 and 5.....10% OFF

## PROCUNTER HIGH SPEED TAPPING ATTACHMENT

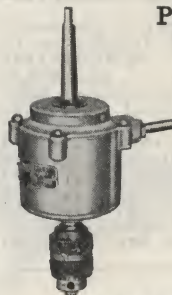


Fig. 4324

For continuous, sensitive tapping on drill presses at high speeds. The cushion-like action of the double-cone cork friction clutch is amazing, it engages with velvety smoothness without jar or clatter, and instantly slips if the tap strikes bottom or sticks. Ball bearing. 3-point balanced, all hardened gear, friction reversing mechanism insures power and durability.

Style	Capacity In Steel	Capacity In Brass	R.P.M.	Morse Taper Shank	★ NET EACH
1E	1/16	3/4	3000	1 or 2	\$35.00
2E	5/8	1 1/2	2000	1, 2 or 3	\$50.00
3E	1/2	3/8	750	2 or 3	\$75.00

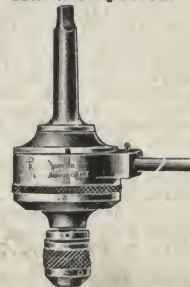
## PROCUNIER "DOUBLE-JAW" POSITIVE TAPPING ATTACHMENT

Fig. 3103. Without Safety Friction. (Illustrated).  
Fig. 3102. With Safety Friction, Hand Adjusted.

Balanced reversing mechanism. Reverses at twice its forward speed. Does not have safety friction. Automatically reversed by raising drill press spindle. For tapping through thin stock where there is little or no danger of breaking tap. Gears made of best steel and hardened. Bearings bushed and easily renewable.

Hand Tap No.	Capacity	Pipe Tap Capacity Inches	Morse Taper Shank	★ NET EACH
1B	0 to 1/32	.....	1-2	\$22.00
2B	1/16 to 1/8	0 to 1/8	2-3	\$25.00
3B	1/8 to 5/16	1/8 to 1/4	3-4	\$34.00
4B	1/2 to 3/4	1/4 to 1/2	4	\$46.00

3102 WITH SAFETY FRICTION. ★ NET EXTRA, \$6.00





## BEAVER STOCKS AND DIES

### No. 3 BEAVER JR., RATCHET THREADER 1/8 TO 1 INCH

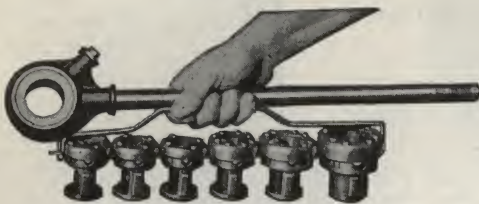


Fig. 2584

Threads 1 inch and all smaller sizes. Buy the complete tool, 1/8, 1/4, 3/8, 1/2, 3/4 and 1 inch, or any part of the range you desire. The best ratchet tool of its type. Ratchet mechanism fully enclosed—no teeth on die head to become mutilated. Oil holes in die heads for easy oiling and chip clearance. Dies square in shape with no weak sections to break. Individual die segments interchangeable—can be sharpened over and over again. Dies can be reversed for threading pipe end too short to pass through the die heads. For iron, steel, brass or copper pipe. Right or left.

1/4 to 3/4	Inch	.....	★ NET COMPLETE, \$12.75
3/8 to 1	Inch	.....	★ NET COMPLETE, \$13.50
1/4 to 1	Inch	.....	★ NET COMPLETE, \$15.75
1/8 to 1	Inch	.....	★ NET COMPLETE, \$18.00

#### Head Complete with Dies

Size, In.	1	¾	½	⅜	¼	⅛
Net per Unit	\$3.00	\$2.63	\$2.63	\$2.25	\$2.25	\$2.25
Extra Dies, less head,.....	★Net per Set, \$1.63					
Ratchet handle.....	★Net Each, 3.00					
Bolt head dies can be furnished...Prices on Application						
<b>BOLT DIES.</b> Head and dies. Right Hand. 1/4 to 1 Inch. SPECIFY SIZE.						

### BEAVER RATCHET DIE STOCK

Mfrs. 17 Ratchet—1/4 to 2-inch. A very rugged tool—with large opening between the dies for oiling and chip clearance. Re-enforcing arch between the dies to prevent spreading of die slots. Die segments are square in shape—no weak "offset". Special long throat die grinding, for easy starting and easy pulling. For steel, wrought iron, cast iron, brass, copper, rubber or aluminum pipe.



Fig. 4194

Can be bought in any range to suit your requirements.

Mfrs. 17	★ NET EACH COMPLETE	.....	\$20.20
Ratchet and Handle.....			\$3.00
1/4 Inch Die Head	.....		\$2.60
3/8 Inch Die Head	.....		\$2.60
1/2 Inch Die Head	.....		\$2.60
3/4 Inch Die Head	.....		\$2.60
1 Inch Die Head	.....		\$3.00
1 1/4 Inch Die Head	.....		\$3.00
1 1/2 Inch Die Head	.....		\$3.40
2 Inch Die Head	.....		\$3.40
Extra dies, any size.....			\$2.25

### BEAVER 4-POST DIE STOCKS 1 TO 2-INCH

These tools offer many advantages such as straight line pull (ratchet on die head) to insure easier pulling, smoother operation, sharper threads, longer die life and less repair expense. Dies on top. Easy oiling. Instant chip clearance. A separate set of dies is used for each size of pipe, but the workholder is self-contained. Will cut uniform drip threads or close nipples. Tools made of air-furnace malleable iron to withstand abuse. Interchangeable die segments. With 4 sets of dies, 1, 1-1/4, 1-1/2 and 2 Inch. Right hand only.

Mfrs. 8R—Ratchet  
Fig. No. 3958

With Grooved Bolt and Washer Centering Device	
Mfrs. 8-R Ratchet	.....★ NET COMPLETE, \$11.25
Mfrs. 8 Plain	.....★ NET COMPLETE, \$9.00
With Universal Chuck Centering Device	
Mfrs. 9-R Ratchet	.....★ NET COMPLETE, \$15.00
Mfrs. 9 Plain	.....★ NET COMPLETE, \$12.00
Dies	
Extra Dies for 8-R, 8, 9-R or 9	.....★ NET SET, \$0.75
Dies For Brass	.....★ NET SET, \$1.00
Dies For Cast Iron	.....★ NET SET, \$1.25

### BEAVERETTE DIE STOCK 1/4 to 3/4 INCH—FULLY ADJUSTABLE

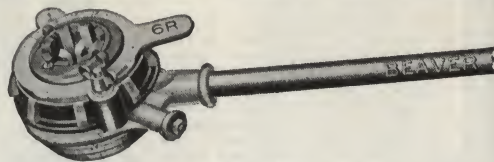


Fig. 1429

Threads 1/4, 3/8, 1/2 and 3/4 inch without changing dies or bushings. The two sets of dies used to cover the two thread pitches are always in the tool and are operated by a single handle. Ingenious and compact. Instantly adjusted for standard, oversize or undersize threads. Universal pipe guide centers pipe accurately. Close nipples can be cut. Locking device on top of tool. For iron, steel, brass or copper pipe. 1-8 inch dies can be furnished extra.

6R Ratchet	.....	★ NET COMPLETE, \$15.00
6 Plain	.....	★ NET COMPLETE, \$12.00
1/4x3/8 Inch Dies	.....	★ NET SET, \$2.25
1/2x3/4 Inch Dies	.....	★ NET SET, \$2.25
1/8 Inch Dies	.....	★ NET SET, \$2.25

### BEAVER SELF-CONTAINED AND ADJUSTABLE DIE STOCKS 1 TO 2 INCH

Easy cutting. Adjustable. Self-contained. Threads all sizes, 1, 1 1/4, 1 1/2 and 2 inch, without changing dies or bushings. Dies are quickly and easily set to size for threading standard, or over, or under.



Fig. 1426

HEAVY WEIGHT. For extra hard service. Durable, strong and dependable. A Universal chuck, cam controlled, centers the pipe accurately and permits cutting crooked threads when desired, as well as close nipples, including 2 inch.

Mfrs. 25 PLAIN Die Stock. One set of dies. Net weight, 22 pounds. ★ NET COMPLETE, \$16.50

Extra Dies for 25 Stock.....★ NET SET, \$2.34

Mfrs. 26 RATCHET Die Stock. (Illustrated.) One set of dies. Net weight, 27 pounds. ★ NET COMPLETE, \$19.25

Extra Dies for 26 Stock.....★ NET SET, \$2.34

Mfrs. 12-R. RATCHET Die Stock. The straight line pull with ratchet on the die head insures smooth and easy cutting, good threads and minimum wear on dies. Self-contained rear-end centers the pipe accurately. (No bushings). Cuts uniform drip threads and close nipples. Exceptionally rugged. Weighs 16 pounds. Made of malleable iron to withstand hard use. Right hand only. One handle. One set of dies.

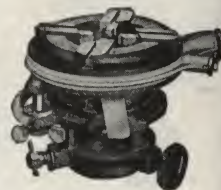


Fig. 4521

★ NET COMPLETE, \$15.00

Mfrs. 12 PLAIN .....★ NET COMPLETE, \$12.50

Extra Dies for 12-R and 12 Stock ..★ NET SET, \$1.50

Mfrs. 13-R RATCHET Die Stock. With Universal chuck centering device which is cam controlled and centers the pipe accurately and permits cutting crooked threads if desired as well as close nipples including 2 inch. With one set of dies.

★ NET COMPLETE, \$16.50

Mfrs. 13 PLAIN .....★ NET COMPLETE, \$14.00

Extra Dies for 13-R and 13 Stock ..★ NET SET, \$1.50

### BEAVER PIPE REAMER



Fig. 4859

Reamer cone is a solid alloy tool steel casting.

Mfrs. 200. Swivel Reamer. 1/8 to 2 inch. ★ NET EACH, \$5.20

Mfrs. 300. Ratchet Reamer. 3/8 to 3 inch. ★ NET EACH, \$7.20



## NYE SOLID DIES



Fig. No. 1418

Teeth cut on a tangent, making a bearing cut. This greatly reduces friction. Hardened and tempered in oil. Dies are made in both Briggs (American) and Whitworth (English) standard. Right hand and left hand dies furnished unless otherwise specified.

### LIST PRICES EACH

Dimensions of Dies	Sizes	List Each
2 x 2 x 1/2	1/8, 1/4, 3/8, 1/2	\$2.75
2 1/2 x 2 1/2 x 1/2	1/8, 1/4, 3/8, 1/2, 3/4, 1	3.00
3 x 3 x 1/2	1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2	4.00
4 x 4 x 1/2	1/8, 1/4, 1 1/4, 1 1/2, 2	5.00
5 x 5 x 1 1/4	1/2, 3	15.00

DISCOUNT ..... 30% OFF

## REED IMPROVED SOLID PIPE STOCKS



Fig. 1415. Stock Complete

Guaranteed throughout. Will also take the dies of other makes of this type in the corresponding size. Set consists of stock complete with dies and guides. The die and the whole operation are in plain sight of the operator. American standard right hand dies are always supplied unless otherwise specified. Dies have the new double-threaded throat. Thickness of these dies is graduated to give each pipe size the proper length thread and insure the correct taper.

Fitted With  
Q. & E. Dies for Pipe



### LIST COMPLETE SET

Set No.	0	1	1 1/2	2
Threads Pipe, Ins.	1/8, 1/4, 3/8, 1/2	1/4, 3/8, 1/2, 3/4, 1	3/4, 1, 1 1/4	1 1/4, 1 1/2, 2
Size Die, Inches	2x2	2 3/8 x 2 3/8	3x3	4x4
Weight, Pounds	6 1/2	11 1/4	15	22
List Complete Set	\$8.00	\$10.50	\$9.50	\$14.50
DISCOUNT	30% OFF			

### LIST EXTRA DIES

No.	Size Range Inclusive	Wt. Oz.	List Each
OSPD	1/8 to 1/2	7	\$1.40
1 SPD	1/8 to 1	12	1.60
1 1/2 SPD	1/8 to 1 1/2	18	2.00
2 SPD	1/2 to 2	36	2.50

DISCOUNT ..... 30% OFF

### LIST EXTRA GUIDES

No.	Size Range Inclusive	Wt. Oz.	List Each
OSPG	1/8 to 1/2	2	\$0.30
1 SPG	1/8 to 3/4	4	.40
1 1/2 SPG	1/8 to 1 1/4	9	.60
2 SPG	1/8 to 1 1/2	13	.75

DISCOUNT ..... 30% OFF

## REED REMOVABLE HEAD RATCHET STOCKS

Set consists of ratchet ring with removable heads. Each head is a complete unit of die holder, die and guide. Die starts, burr or no burr, and cuts easily. Double threaded throat. Snap bushings can be removed when crooked threads are wanted.

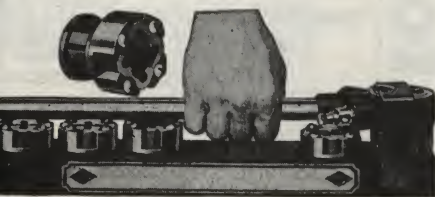


Fig. 4195

Mfrs. No.	LIST SET	Threads Pipe, Ins.	Size Heads	Size Die Block, Ins.	Complete Head, List	List Dies
702	\$13.50	1/4 to 3/4	1/8 to 3/4	1 1/2 x 1 1/2	\$2.25	\$1.40
703	\$11.25	3/8 to 1	1/8 to 3/4	1 1/2 x 1 1/2	\$2.25	\$1.40
714	\$11.70	1/2 to 1 1/2	1/8 to 1	2 x 2	\$2.40	\$1.40
725	\$12.25	3/4 to 1 1/4	1/8 to 1 1/4	2 1/2 x 2 1/2	\$2.50	\$1.60

DISCOUNT ..... 20% OFF

## REED ADJUSTABLE PIPE STOCKS

With Improved Q & E Dies



Fig. 4196

Stocks are standard and take dies, guides, and parts in corresponding sizes of all makers of the Armstrong type.

Dies have new double-threaded throat, a patented improvement, which causes dies to start threading without any pushing effort, drawing them onto pipe easily, burr or no burr. Dies vary in thickness according to size of pipe; this gives correct taper and length of thread. Cutting edges are given rake so that metal is removed by a cutting rather than a scraping action. Easy cutting. Lasting qualities. Smooth accurate threads. Guide marked with pipe size and number of stock it fits.

Mfrs. Set. No.	List Set	Threads Pipe, Inches	Size Dies, Guides, Inches	Extra Dies, Each	Extra Guides, Each
AP1	\$ 9.00	1/8, 1/4, 3/8, 1/2	1/8 to 1/2	\$1.60	\$0.30
AP1	12.00	1/4, 3/8, 1/2, 3/4, 1	1/8 to 1	2.00	.40
AP2	14.00	3/8, 1/2, 3/4, 1	1/8 to 1	2.00	.40
AP4	10.50	1/2, 3/4, 1	1/8 to 1	2.00	.40
AP5	8.75	3/4, 1	1/8 to 1	2.00	.40
AP6	7.00	1, 1 1/4	1/8 to 1	2.00	.40
1/2 AP3	14.00	1/2, 3/4, 1, 1 1/4	1/8 to 1 1/2	2.50	.60
1/2 AP3	19.00	3/4, 1, 1 1/4, 1 1/2, 2	1/8 to 1 1/2	2.50	.60
AP1	18.00	1, 1 1/4, 1 1/2, 2	1/2 to 2	3.50	.75
AP2	21.00	1 1/4, 1 1/2, 2	1/2 to 2	3.50	.75
AP3	24.00	3/4, 1, 1 1/4, 1 1/2, 2	1/2 to 2	3.50	.75
AP4	27.00	1, 1 1/4, 1 1/2, 2	1/2 to 2	3.50	.75

DISCOUNT ..... 30% OFF

## REED RATCHET PIPE STOCK

Fig. 3107S—Solid Dies

Mfrs. 2SR1

★ NET SET, \$13.50

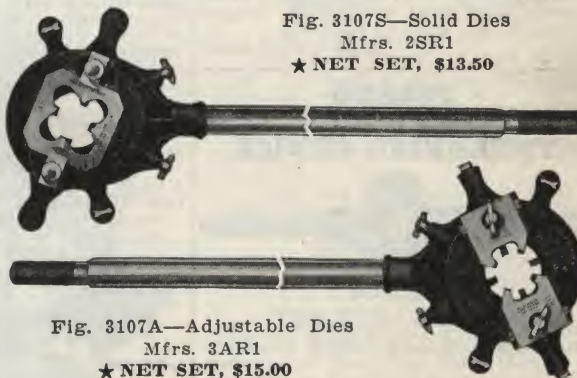


Fig. 3107A—Adjustable Dies

Mfrs. 3AR1

★ NET SET, \$15.00

A handy and easy cutting pipe threading tool. Extra strong. Equipped with double threaded throat dies. Elimination of lead screw permits cutting of 1/2 inch and 3/4 inch thread with the same stock used for larger sizes. Also nipples can be threaded one inch shorter than usual with ratchet stock. The same stock cuts both right hand and left hand threads—the pawls are reversible. Has telescopic handle to increase leverage.

Complete set, stock and 4 sets of dies—1, 1 1/4, 1 1/2 and 2 inches.

Fig. 3107S. Mfrs. 2SR1—Set with solid dies.

★ NET EACH, \$15.00

Fig. 3107A. Mfrs. 3AR1—Set with adjustable dies.

★ NET EACH, \$16.50

Extra dies—1/2, 3/4, 1, 1 1/4, 1 1/2 or 2 inch.

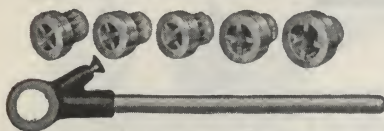
Adjustable dies ..... ★ Net Each, \$3.15

Solid dies ..... ★ Net Each, \$1.75



## TOLEDO PIPE THREADING TOOLS

### TOLEDO RATCHET PIPE THREADING DEVICES

Fig. 2192.  $\frac{1}{8}$  to  $\frac{3}{4}$  Inch

**MFRS. 00.** Capacity,  $\frac{1}{8}$  to  $\frac{3}{4}$  inch pipe. Desirable, light and compact. Easily carried.  $16\frac{1}{2}$  inches long. Will thread pipe in corners. Cuts standard threads of full taper. Die heads are instantly changed from one size to another by pulling ratchet pawl knob. Die segments can be removed and reground. Complete tool consists of ratchet handle and  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ , and  $\frac{3}{4}$  inch die heads with right hand threads. Net weight, 9 pounds.

#### ★ NET EACH, \$12.35

Extra Dies, Right Hand:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  inch.....★ **NET SET, \$1.30**  
Extra Die Head with Dies, Right Hand:  
 $\frac{1}{8}$ ,  $\frac{1}{4}$  or  $\frac{3}{8}$  in...★ **NET EACH, \$1.95**  
 $\frac{1}{2}$  or  $\frac{3}{4}$  inch....★ **NET EACH, \$2.28**

Fig. 4197.  $\frac{1}{2}$  to  $1\frac{1}{4}$  Inch

**MFRS. 11.** Capacity,  $\frac{1}{2}$  to  $1\frac{1}{4}$  inch pipe. Similar but larger than No. 00. Complete tool consists of ratchet handle and  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1 and  $1\frac{1}{4}$  inch die heads with right hand dies. Net weight,  $10\frac{1}{2}$  pounds.

#### ★ NET EACH, \$12.00

Extra Dies, Right Hand:  
 $\frac{1}{2}$  or  $\frac{3}{4}$  inch.....★ **NET SET, \$1.30**  
1 or  $1\frac{1}{4}$  inch.....★ **NET SET, \$1.03**  
Extra Die Head with Dies, Right Hand:  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1 or  $1\frac{1}{4}$  inch.  
★ **NET SET, \$2.50**

### TOLEDO 3-WAY PIPE THREADING DEVICE



Fig. 2975

**MFRS. 30.**  $\frac{3}{8}$  to  $\frac{3}{4}$  Inch Capacity.  
**MFRS. 31.**  $\frac{1}{2}$  to 1 Inch Capacity.  
Light, small and easy to operate. Compact. Each die head is "on center" with a handle projecting from each side. Perfect balance. Easy cutting segmental dies. Die segments are removable and can be reground or replaced. Clears itself of chips. Dies for threading brass or conduit can be furnished special; prices on application.

**NO. 30.**  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  INCH

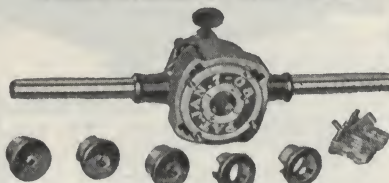
#### ★ NET EACH, \$6.00

**NO. 31.**  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1 INCH

#### ★ NET COMPLETE, \$6.75

Extra Dies, Right Hand:  
 $\frac{3}{8}$  inch for 30...★ **NET SET, \$1.30**  
 $\frac{1}{2}$  or  $\frac{3}{4}$  inch for 30 or 31.  
★ **NET SET, \$1.30**  
1 inch for 31.....★ **NET SET, \$1.63**

### TOLEDO ADJUSTABLE PIPE THREADING DEVICE

Fig. 2582.  $\frac{1}{8}$  to  $\frac{3}{4}$  Inch

**MFRS. 0.** Capacity,  $\frac{1}{8}$  to  $\frac{3}{4}$  inch pipe. 24 inches from tip to tip. Receding die for threading  $\frac{1}{8}$  and  $\frac{3}{4}$  inch pipe and producing perfectly tapered threads. Easy operating. Locking pin instantly locks the die head and pipe holder and is used only when threading  $\frac{1}{8}$ ,  $\frac{1}{4}$  and  $\frac{3}{4}$  inch pipe. Dies are changed from size to size by slipping them in die head case. Adjustment is easily and quickly made and it is positive. One set of dies is used for threading  $\frac{1}{8}$  inch, a set for  $\frac{1}{4}$  and  $\frac{3}{8}$  inch, and a set for  $\frac{1}{2}$  and  $\frac{3}{4}$  inch. Complete with tool body, two handles, set of  $\frac{1}{8}$  inch, set of  $\frac{1}{4}$  and  $\frac{3}{8}$  inch and set of  $\frac{1}{2}$  and  $\frac{3}{4}$  inch right hand dies. Net weight, 8 pounds.

#### ★ NET EACH, \$10.40

Extra Dies, Right Hand:  $\frac{1}{8}$ , or  $\frac{1}{4}$  x  $\frac{3}{8}$ , or  $\frac{1}{2}$  x  $\frac{3}{4}$  inch.

#### ★ NET SET, \$1.38

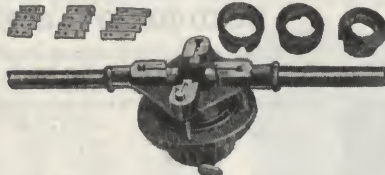


Fig. 1430. 1 to 2 Inch

**MFRS. 1.** Capacity, 1 to 2 inch pipe. Easy operating, a boy could thread pipe with this tool. Receding die principle. Instantly adjusted for cutting over and under size as well as standard threads. Produces true tapered threads. Strong. Durable. The standard. Will stand years of service. Complete with tool body, two handles, set 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$  and 2 inch right hand dies, bushings and instruction card. Net weight, 19 pounds.

#### ★ NET EACH, \$9.00

Extra Dies, Right Hand:  
1,  $1\frac{1}{4}$  or  $1\frac{1}{2}$  inch.★ **NET SET, \$0.75**  
2 inch.....★ **NET SET, \$1.25**  
Left Hand Tool with all parts reversed ordered special, not stocked, 1 to 2 inch.

#### ★ NET COMPLETE, \$12.00

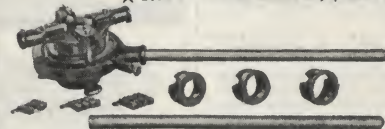


Fig. 1432. 1 to 2 Inch.

**MFRS. 1A.** Similar to No. 1 except equipped with a ratchet which makes it easy to thread pipe in restricted places. May be used with one or two handles as desired. Easy operating. Complete with two handles, set of 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$  and 2 inch right hand dies, bushings and instruction card. Net weight, 22 pounds.

#### ★ NET EACH, \$11.25

Extra Dies, Right Hand:  
1,  $1\frac{1}{4}$  or  $1\frac{1}{2}$  inch.★ **NET SET, \$0.75**  
2 inch.....★ **NET SET, \$1.25**  
Left Hand Tool with all parts reversed ordered special, not stocked, 1 to 2 inch.

#### ★ NET COMPLETE, \$15.00

### TOLEDO ADJUSTABLE PIPE THREADING DEVICES ONE SET OF DIES FOR ALL SIZES



Fig. 4198. 1 to 2 Inch

**MFRS. 10.** Capacity, 1 to 2 inch pipe. One set of dies to thread several sizes of pipe. Threads pipe easily. Receding die type of tool. Few working parts. Die head holds the die segments surrounded by a step case having four sets of steps against which dies rest. When threading pipe the dies move down these steps gradually receding, producing a long thread of standard taper that insures tight joints. Adjustable for cutting over or under size threads as well as standard. Strongly built. Durable. Complete with one set of 1 to 2 inch right hand thread dies, bushings, two handles, and instruction card. Net weight, 19 pounds.

#### ★ NET EACH, \$10.64

Extra Dies, Right Hand: 1 to 2 inch  
★ **NET SET, \$1.63**

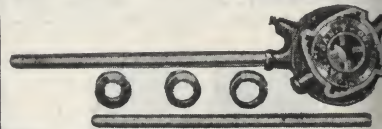


Fig. 4199. 1 to 2 Inch.

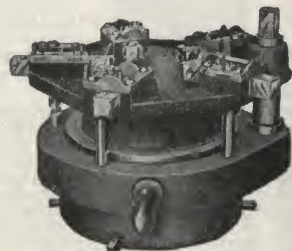
#### With Ratchet

**MFRS. 10A.** Similar to No. 10 except it is equipped with a ratchet. For cutting threads in trenches or restricted places. Complete with set of 1 to 2 inch right hand dies, set of bushings, two handles and instruction card. Net weight, 20 pounds.

#### ★ NET EACH, \$12.92

Extra Dies, Right Hand.  
★ **NET SET, \$1.63**

### TOLEDO GEARED ADJUSTABLE PIPE THREADING DEVICE ONE SET OF DIES FOR ALL SIZES

Fig. 2583.  $2\frac{1}{2}$  to 6 Inch

**MFRS. 25.** Capacity,  $2\frac{1}{2}$  to 6 inch pipe inclusive. Threads the several sizes of pipe within its capacity with one set of dies. Adjusting from one size to another is positive. Receding die principle. Threads pipe easily. Special long barreled bushings. Easy to center tool on pipe. Complete with two sets of right hand dies, one set of bushings, screw wrench, instruction card and ratchet handle. Net weight, 20 pounds.

#### ★ NET EACH, \$115.00

Extra Dies.....★ **NET SET, \$4.00**



## TOLEDO PIPE THREADING TOOLS

### TOLEDO GEARED ADJUSTABLE THREADING DEVICES

Cuts perfect threads. One man can easily operate any size, including 12 inch, threading device by hand. Can be used with power machine. Complete with right hand dies, bushings, set screw wrench, instruction card and ratchet handle.

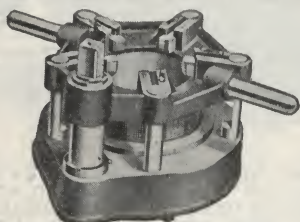


Fig. 1431. 2 1/2 to 4 Inch

**MFRS. 2.** Capacity, 2 1/2 to 4 inch pipe. The most practical, durable, easily operated and satisfactory threading device in use today. Operates with the receding die principle. With set each of 2 1/2, 3, 3 1/2 and 4 inch dies. Net weight, 84 pounds.

★ **NET EACH \$50.00**

Extra Dies, R.H., 2 1/2, 3, 3 1/2 or 4 inch. Specify size.

★ **NET SET, \$4.00**

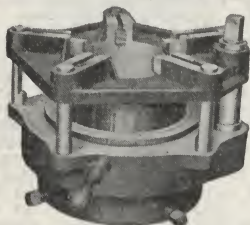


Fig. 4200. 4 1/2 to 6 Inch

**MFRS. 2 1/2.** Capacity, 4 1/2 to 6 inch pipe. Long barreled bushings facilitate centering tool on pipe. With set each of 4 1/2, 5 and 6 inch dies. Net weight, 155 pounds.

★ **NET EACH \$100.00**

Extra Dies, R.H., 4 1/2, 5 or 6 inch. Specify size....★ **NET SET, \$6.00**

Fig. 1433. 4 1/2 to 8 Inch

**MFRS. 3.** Capacity, 4 1/2 to 8 inch pipe. Can be operated on a pipe the center of which is within 10 inches of a wall or obstruction. With one set each of 4 1/2, 5, 6, 7 and 8 inch dies. Net weight, 215 pounds.

★ **NET EACH \$150.00**

Extra Dies, R.H., 4 1/2, 5, 6, 7, or 8 inch. Specify size.

★ **NET SET, \$6.00**

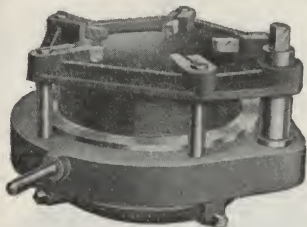


Fig. 4201. 9 to 12 Inch

**MFRS. 4.** Capacity, 9 to 12 inch pipe. With set of 9, 10 and 12 inch dies and set each of 10 and 12 inch plain milling dies to true up pipe. Net weight, 329 pounds.

★ **NET EACH \$250.00**

Extra Dies, R.H., 9, 10 and 12 inch. Specify size....★ **NET SET, \$10.00**

### TOLEDO AUTOMATIC PIPE CUTTERS

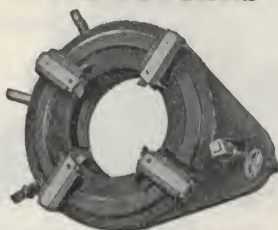


Fig. 3533. 2 to 4 Inch.

**MFRS. 40.** Capacity, 2 to 4 inches of pipe or conduit. Cuts rapidly, leaving a straight, square-end cut without burr, and it neatly chamfers the outer edge, making it very easy to center and start the threading dies on the pipe. Produces a clean, smooth cut. Knives are fed automatically. Single hand wheel sets knives for cutting. Quick return. Operated either with ratchet handle furnished with No. 2 or 25 Threading Tools or with Power Drive. One jaw centers it on pipe and holds it true and rigid. Complete with set screw wrench, bushings, an extra set of cutter knives and instruction card. Net weight, 70 pounds.

★ **NET EACH \$60.00**

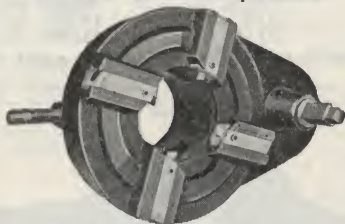


Fig. 4203. 4 1/2 to 8 Inch

**MFRS. 80.** Capacity 4 1/2 to 8 inch pipe. Similar to No. 40 except larger and with two set screws for centering tool on the pipe. Cuts off large pipe rapidly and perfectly. Operated with ratchet handle furnished with No. 3 or 4 Threading Tools or with Power Drive. Net weight, 173 pounds.

★ **NET EACH \$150.00**

### TOLEDO GEARED PIPE CUTTERS

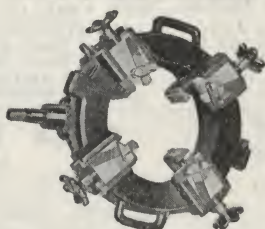


Fig. 4202

Cuts off large pipe quickly, accurately, leaving a straight, square-end cut without a burr. Chuck jaws are case hardened with micrometer marks, making it easy to center the tools on the pipe. Two piece frame casting so tool can be clamped around pipe already installed. Can be operated by ratchet handle or a Power Drive. Knives are fed into the pipe by hand. Knives are high speed steel, carefully tempered, double-ended, and can be reground. Complete with cutter knives, set screw wrench, and ratchet handle.

MFRS. NO.	Capacity Inches	Net Weight	★ NET COMPLETE
250	2 1/2 to 6	98	\$ 60.00
300	4 1/2 to 8	125	\$105.00
350	7 to 10	150	\$130.00
400	9 to 12	175	\$150.00

### TOLEDO NO. 999 PORTABLE PIPE MACHINE

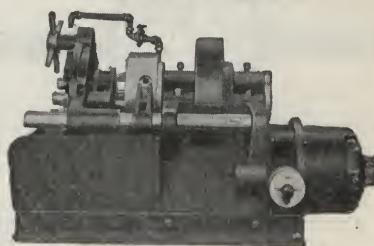


Fig. 3959. 1/2 to 2 Inch

**Mfrs. 999.** A 1/2 to 2 inch portable power pipe machine, capable of unusually high daily production. Fitted with specially designed cutting head with 4 knives, cutting simultaneously. 2 inch size is cut off in 15 seconds. 2 inch size is threaded in 30 seconds. Die heads are changed instantly from one size to another, and the dies are easily reground when dull. The Universal, reversible, ball-bearing electric motor operates from a lamp socket. The oil pump is built into the machine and is positive in action. A safety friction gear protects the machine if over-loaded. There are no levers to change and no gears to shift as all control is centralized in the motor switch. The machine weighs but 265 pounds and is easily carried by two men. It is the most desirable small, compact, bench-type power pipe machine on the market.

★ **NET EACH \$285.00**

### TOLEDO ADJUSTABLE BOLT DIE HEADS

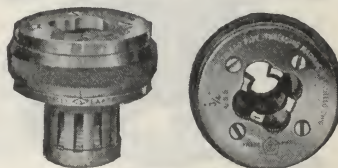


Fig. 4863

For use in regular Toledo 00 Ratchet. Threads standard bolt sizes, also to 1/64 inch over or under. All four cutting edges cut equally. Removable die segments. Quick, positive, visible, accurate adjustment. SPECIFY U. S. S. or S. A. E. Right Hand Bolt Dies.

**Adj. Die Head and Bolt Dies**  
3/8; 7/16; or 1/2 Inch...★ **NET, \$3.35**  
5/8; 3/4; or 1 Inch...★ **NET, \$3.50**

**Bolt Dies Only, Set**  
3/8; 7/16; or 1/2 Inch...★ **NET, \$1.60**  
5/8; 3/4; or 1 Inch...★ **NET, \$1.75**

### TOLEDO RATCHET PIPE REAMER

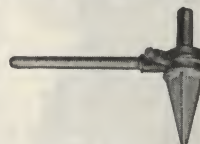


Fig. 3619. 3/8 to 3 Inch

Reams pipe 3/8 to 3 inches inclusive. Cutter blades are cast solidly in the head. They cut freely and are made of high speed steel; may be readily resharpened, or entire head may be replaced. Unique hand grip provides a natural position for holding the reamer. Light, polished, tubular handle. Ratchet head is enclosed.

★ **NET EACH, \$5.60**



## OSTER PIPE TOOLS AND MACHINES

### OSTER "BULL DOG" STOCKS AND DIES

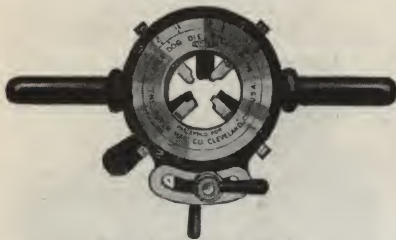


Fig. 1424. 114 Plain

Lever-locking, adjustable dies. Self-locking, self-centering guides. No backing off, the dies open and release the pipe. Dies reset to size instantly. Each set of dies threads two sizes of pipe. Adjustable for over, under and standard sizes. Universal chuck accurately centers all sizes and saves time.

115-R Ratchet type is particularly handy in close quarters and for work in ditches. Can be instantly set for either right hand operation, left hand operation, or without the ratchet.

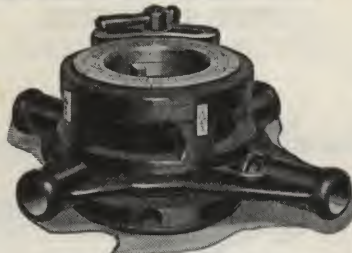


Fig. 1424R. 115-R Ratchet

### OSTER POWER BOY THE LIGHTEST, PORTABLE THREADING MACHINE MADE

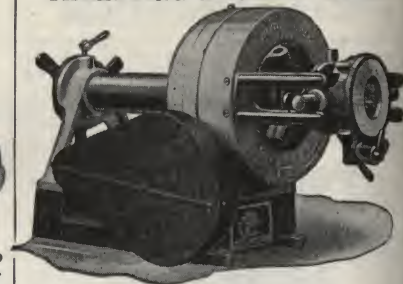


Fig. 3478

Portable pipe machine. Saves time and labor in the shop or on the job. Compact. Built mainly of sheet steel and aluminum. Easily moved. A power drive for practically any die stock. Drives any roller or knife type cutter. Can be used to turn up fittings.  $\frac{1}{4}$  horse power, universal, reversible, variable speed motor. SPECIFY D.C. or A.C. and cycles.

**MFRS. 412.** Light duty. Machine is 18 $\frac{1}{2}$  inches high, 16 inches wide, 30 inches long. Net weight, 152 pounds. Less stocks or dies.

**★ NET EACH \$165.00**

**EXTRA** for No. 114 Bull Dog Die Stock,  $\frac{1}{2}$  to 2 inch. For power operation. **★ NET, \$15.40**

**EXTRA** for 412 Metal Stand. **★ NET, \$17.50**

**MFRS. 414.** Heavy duty. Powerful enough to thread large sizes of pipe with ease. Handles all sizes of pipe from  $\frac{1}{2}$  to 4 inch through its barrel. With the special drive shaft it will drive geared die-stocks up to 12 inch capacity. Two speed transmission increases production speed. Built-in scroll gripping chuck in front and auxiliary chuck in rear grip the pipe securely. LESS stocks, dies and accessories. Machine is 24 $\frac{1}{2}$  inches high, 20 inches wide and 47 inches long. Net weight, 380 pounds.

**★ NET EACH \$375.00**

**EXTRA** for No. 114 Bull Dog Die Stock,  $\frac{1}{2}$  to 2 inch pipe capacity, for power operation. **★ NET, \$15.40**

**EXTRA** for 44 Geared Receder Die Stock, 2 $\frac{1}{2}$  to 4 inch pipe capacity, for power operation. **★ NET, \$50.00**

**EXTRA** for 414 Metal Stand. Sturdy. Made of steel. Net weight, 95 pounds. **★ NET, \$45.00**

#### —PLAIN STOCK— —RATCHET STOCK—

Size of Pipe, Inches	Sets				Sets				EXTRA DIES Single Set
	Mfrs. No.	Pipe Dies	Weight Pounds	★NET EACH	Mfrs. No.	Pipe Dies	Weight Pounds	★NET EACH	
$\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , $\frac{3}{4}$	111	2	8	\$9.35	112R	2	8	\$11.00	\$1.65
$\frac{1}{2}$ , $\frac{3}{4}$ , 1, 1 $\frac{1}{4}$	111 $\frac{1}{2}$	3	8	\$11.00	112R	3	8	\$12.10	\$1.65
$\frac{3}{4}$ , 1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$	112	3	13	\$12.10	113R	3	13	\$13.20	\$1.93
1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ , 2	113	2	17	\$13.20	114R	2	22	\$15.40	\$2.20
$\frac{1}{2}$ , $\frac{3}{4}$ , 1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ , 2	114	3	18	\$15.40	114 $\frac{1}{2}$ R	3	23	\$18.70	\$2.20
$\frac{3}{4}$ , 1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ , 2, 2 $\frac{1}{2}$ , 3	114 $\frac{1}{2}$	4	19	\$17.60	115R	4	24	\$20.29	\$2.20
1 $\frac{1}{2}$ , 2, 2 $\frac{1}{2}$ , 3	.....	.....	.....	.....	115 $\frac{1}{2}$ R	2	68	\$33.00	\$3.85
1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ , 2, 2 $\frac{1}{2}$ , 3	.....	.....	.....	.....	115 $\frac{1}{2}$ R	3	70	\$36.85	\$3.85
2 $\frac{1}{2}$ , 3, 3 $\frac{1}{2}$ , 4	.....	.....	.....	.....	117R	2	74	\$38.50	\$4.40
1 $\frac{1}{2}$ , 2, 2 $\frac{1}{2}$ , 3, 3 $\frac{1}{2}$ , 4	.....	.....	.....	.....	117 $\frac{1}{2}$ R	3	77	\$42.90	\$4.40

Not Made with Cut-off Attachment. Die set comprises 4 pieces, right or left hand.

### OSTER "LEADER" DIE STOCKS

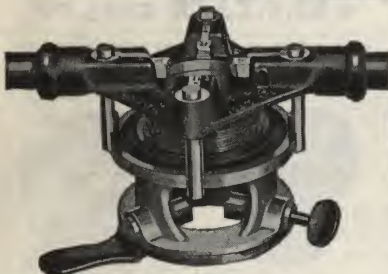


Fig. 4204. No. 1 Plain

Capacity, 1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$  and 2 inch pipe. Receding type. For hand threading. Narrow, easy cutting dies. Carefully machined, non-clogging leader screw which provides frictionless operation. With centering device. Universal chuck gives a straight thread every time. Locking screw on one chuck jaw permits a crooked thread only if desired. With 4 sets of dies.

**Mfrs. 1. Plain Type.** 1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$  and 2 Inch. 15 Lbs. **★ Net Each, \$9.60**  
**Mfrs. 1A. Ratchet Type.** 1, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$  and 2 Inch. 21 Lbs. **★ Net Each, \$12.00**  
**Mfrs. 44. Geared Stock.** 2 $\frac{1}{2}$ , 3, 3 $\frac{1}{2}$  and 4 Inch. 93 Lbs. **★ Net Each, \$50.00**  
**Extra Dies, Right Hand,** 1, 1-1/4, 1-1/2, or 2 inch. **★ NET SET, \$0.75**  
**Extra Dies, Right Hand,** 2-1/2, 3, 3-1/2 or 4 inch. **★ NET SET, \$4.00**

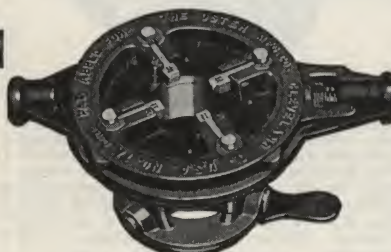


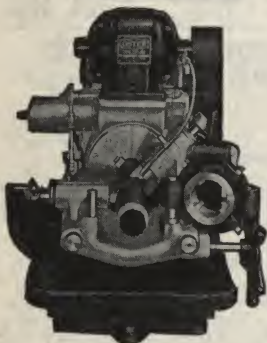
Fig. 4205. No. 1A Ratchet

### "TOM THUMB" PIPE MACHINE

#### ROTARY SPINDLE

Fig. 5242.

Mfrs. 512-OD



Complete with carriage, rack and pinion feed, thread length indicator, built-in cutting off device, with V-type centering block, high speed steel cut off blade, high speed reaming and chamfering forming tool, oil pump and base containing oil reservoir, 3 jaw universal gripping chuck on front of spindle and 3 jaw universal centering chuck on rear of spindle. Universal reversible variable speed motor, specify 110 or 220 volts. Quick opening die head with 1 complete set of high speed steel pipe dies, 1/2 to 2 inch. **★ NET COMPLETE, \$275.00**

Extra high speed steel pipe dies. Set of ( $\frac{1}{2}$  and  $\frac{3}{4}$ ), (1 and 1 $\frac{1}{4}$ ), and (1 $\frac{1}{2}$  and 2). **★ NET SET, \$6.00**

### OSTER "TOM THUMB" BOLT MACHINE

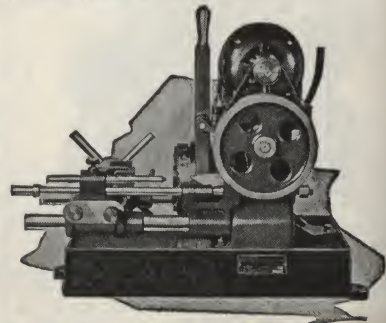
#### ROTARY DIE HEAD TYPE

Fig. 4357. Mfr. 521

For quick, accurate, easy handling of bolt work. Rotary oil pump and reservoir for steady flow of cutting oil on dies. Open type vise. Timken roller bearings. Universal, reversible, variable speed motor. VV belt drive. Tripping device opens dies when thread reaches desired length. Adjustable stock stop. **WITHOUT** standard bolt dies  $\frac{3}{8}$  to 1 $\frac{1}{4}$  inch.

**COMPLETE** **★ NET \$350.00**

Extra bolt dies. 1 set to a size,  $\frac{3}{8}$  to 1 $\frac{1}{4}$  inch, U. S. Standard **★ NET SET, \$3.38**





SAUNDERS ROLLER PIPE CUTTER

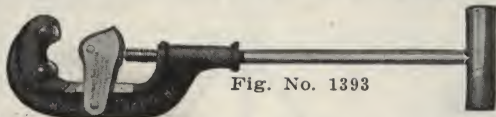


Fig. No. 1393

An indispensable shop tool. Has a spring in the frame which engages with the swing block causing the swing block to rest against the end of the screw rod all the time. This feature saves labor in putting the pipe-cutter on or removing from pipe. Rollers turn down burr made in cutting pipe and permit immediate threading.

LIST PRICES

Size Number	Cuts Inches	Cutter Complete List Each	Repair Parts					Handles and Screws List Each
			Blocks and Wheel List Each	Wheels List Each	Rollers List Each	Pins List Each		
1	1/8 to 1	\$3.00	\$1.25	\$0.50	\$0.24	\$0.10		\$1.00
2	1 to 2	4.50	1.75	.60	.32	.10		1.25
3	2 to 3	11.00	2.75	1.10	.50	.15		1.75
4	2 1/2 to 4	18.00	3.50	1.10	.50	.15		3.50
5	4 to 6	28.00	4.00	1.10	.60	.15		5.00

DISCOUNT, Tools and Repairs.....30% OFF  
DISCOUNT, Wheels only .....50% OFF

BARNES THREE-WHEEL PIPE CUTTER



Fig. 1394

Three-wheel pipe cutters cut more rapidly than any other kind of pipe cutters, and are especially adapted for use in cutting in corners and close quarters.

Wheels and pins are made of tool steel carefully tempered. Inspected and tested before shipment.

LIST PRICES

Size Number	Cuts, Inches	Tools Cutter, Complete List Each	Repair Parts				
			Wheels, List Each	Pins, List per Doz.	Hooks, List Each	Slides, List Each	Handles, List Each
1	1/8 to 1	\$4.50	\$0.50	\$1.00	\$1.75	\$0.75	\$1.00
2	1 to 2	6.00	.60	1.00	2.60	1.00	1.25
3	1 1/2 to 3	10.00	.80	1.00	4.55	2.00	2.25
4	2 1/2 to 4	20.00	1.00	2.00	9.50	4.50	4.50
5	4 to 6	30.00	1.10	2.00	13.75	7.00	7.00
6	6 to 8	40.00	1.10	2.00	20.00	8.50	9.25
6 1/2	8 to 10	45.00	1.10	2.00	23.00	9.50	10.25
7	9 to 12	50.00	1.10	2.00	25.00	11.25	11.50

Tool Discount ....40% Repair Discount .....40%  
Wheel Discount .....55% OFF

BEAVER SQUARE-END PIPE CUTTER



Fig. 2045

The only pipe cutter that cuts rather than crushes the pipe apart. Beaver Square-end pipe cutters cut the pipe clear through. They leave no burr on the side of the pipe to ream out. They leave no burr on the outside of the pipe to file off. They do not slit or crush the pipe.

LIST PRICES

Cuts Pipe Sizes	Shipping Wt., Lbs.	Complete, List Each	DISCOUNT
1/8 to 1-in.	9	\$18.00	
1 to 2-in.	15	20.00	
2 1/2 to 4-in.	55	90.00	
No. 1 .....		25% OFF	
No. 5 .....		25% OFF	
No. 10 .....		33-1/3-10% OFF	

Repair Parts for Beaver Pipe Cutter

Set of Knives, List per Set	Springs, Per Set	DISCOUNT
\$1.20	\$0.25	
1.50	.25	
2.50	.25	
No. 1 .....		25% OFF
No. 5 .....		25% OFF
No. 10 .....		25% OFF

GENUINE TRIMO PIPE CUTTER

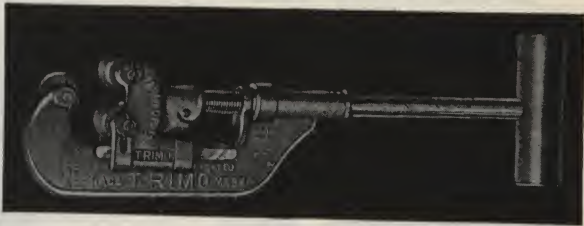


Fig. No. 1395

Drop forged steel. Cadmium plated, rust resisting. With one smooth edge cutting wheel made of tricrome, silvered. Two rolls.

LIST PRICES EACH

Size No.	Cuts Pipe, In.	List Each
1	1/8 to 1 1/4	\$ 5.00
2	1/4 to 2	6.00
3	1 to 3	10.00
4	2 1/2 to 4	20.00

Repair Parts for Trimo Pipe Cutters

LIST PRICES EACH

Sizes	No. 1 Each	No. 2 Each	No. 3 Each	No. 4 Each
List .....				
Nuts .....	\$0.35	\$0.35	\$0.40	\$0.60
Wheels .....	.60	.60	.90	1.20
Rolls .....	.30	.30	.40	.40
Roll Block.....	1.25	1.25	2.25	4.00
Frame .....	2.25	2.50	3.25	9.50
Handle Screw.....	1.00	1.25	2.00	4.00
Handle .....	.50	.50	.50	.60
Roll Block Pin.....	.03	.03	.03	.03

LIST PRICES PER DOZEN

List	Doz.	Doz.	Doz.	Doz.
Pins with Cotter Pins...	\$1.30	\$1.30	\$1.30	\$2.00
Cotter Pins.....	.20	.20	.20	.20
Anti-friction Washers...	.60	.60	.60	.60

DISCOUNT, Tools and Repairs.....45% OFF

RIGID PIPE CUTTERS



Fig. 4864

Cutter frames are made with internal reinforcing of tempered steel. Rollers are interchangeable to make a 3 wheel cutter. Thin wheel blades give extra clean, quick cuts with practically no burr.

Size No.	Cuts Pipe, Inches	LIST EACH	Solid Blade List	Cast Iron Wheel	Roll List Each	Pin & Clip List
1	1/8 to 1-1/4	\$4.50	\$0.50	\$0.40	\$0.30	\$0.20
2	1/8 to 2	\$6.00	\$0.50	\$0.40	\$0.30	\$0.20
3	1 to 3	\$10.00	\$1.00	\$0.80	\$0.60	\$0.20
4	2 to 4	\$20.00	\$1.00	\$0.80	\$0.60	\$0.20

DISCOUNT ..... 45% OFF

RIGID TUBING CUTTER

Made with twin piece saddle, with V-pad of spring steel. The pad irons the tube smooth, ready to solder. Tubing reamer is part of cutter.



Fig. 4865

No.	Cuts, Inches	LIST
00	1/8 to 1	\$1.75
0	1/2 to 2	\$3.50

DISCOUNT .. 45% OFF

NYE KNURLED KNIFE BLADE CUTTER WHEELS

LIST PRICES EACH



Fig. No. 2575

	List Each		List Each
No. 1 Barnes.....	\$0.50	No. 4 Saunders.....	\$1.10
No. 2 Barnes.....	.60	No. 5 Saunders.....	1.10
No. 3 Barnes.....	.80	No. 1 Nye.....	.70
No. 4 Barnes.....	1.00	No. 2 Nye.....	.80
No. 5 Barnes.....	1.10	No. 1 Trimo.....	.60
No. 1 Saunders.....	.50	No. 2 Trimo.....	.60
No. 2 Saunders.....	.60	No. 3 Trimo.....	.90
No. 3 Saunders.....	1.10		

DISCOUNT ..... 45% OFF



### TRIMO MALLEABLE SELF-LOCKING PIPE VISE

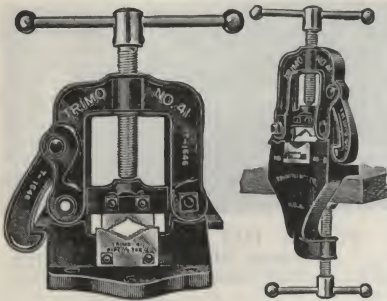


Fig. 3236  
Bench Type

Fig. 3237  
Kit Type

Gives the greatest strength and durability with the least weight. Jaws of tool steel, hardened and tempered, having fine milled teeth. Malleable iron yoke, base and frame. Self-locking latch.

No.	Pipe Cap., Inches	Wt. Lbs.	Vise, List Each	Extra Jaws (3 pcs.) List per Set
<b>Fig. 3236—BENCH TYPE</b>				
400	1/8 to 1 1/2	4 1/2	\$ 3.60	\$1.50
40	1/8 to 2	6 1/2	4.25	1.80
41	1/8 to 2 1/2	10 1/2	5.00	2.10
42	1/8 to 3 1/2	15	7.50	2.55
43	1/8 to 4 1/2	22 1/2	11.00	3.60

<b>FIG. 3237—KIT TYPE</b>				
40B	1/8 to 2	9 1/2	\$5.00	\$1.20

DISCOUNT ..... 27% OFF

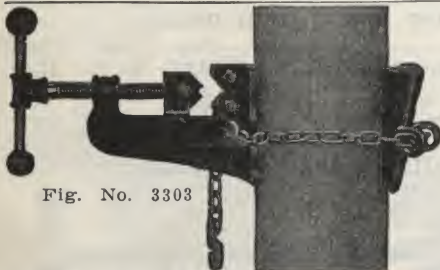


Fig. No. 3303

### DROP-FORGED CHAIN PIPE VISE

For Pipe, Bolts, Bars and Shafts

Fig. No. 1398

Unbreakable, compact, rapid in action and positive in gripping pipe. All are equally serviceable upon and suitable for fastening to bench or post. The smaller sizes are well adapted for carrying by hand or in tool bag.

Adjustment is quickly effected by slightly turning the screw and further quick adjustment is gained by engaging the projecting rivets of chain with a series of bosses on base.

They are made entirely of wrought steel; the drop-forged jaws are of saw-tempered steel for file-sharpening.

VISE COMPLETE—LIST EACH				
No.	Pipe Cap., In.	Size Folded	Wt., Lbs.	Vise, Complete
1	1/8 to 2	4x 5x 6	4	\$7.00
2	1/4 to 4	6x 8x 8	10	15.00
3	1/2 to 6	8x 9x11	18	27.00
4	3/4 to 8	8x10x12	30	36.00

DISCOUNT

### TOLEDO OPEN SIDE PIPE VISES



Fig. 4522

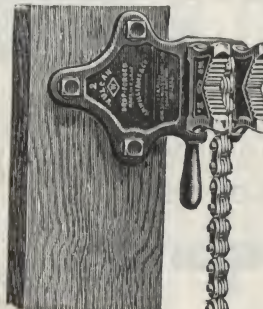
Practical, and convenient. Frames are malleable iron. Hardened steel jaws are extra long and afford a much better grip on the pipe than ordinary vises. Excellent for fitting make-up work.

Size No.	Pipe Capacity	Weight Pounds	★NET EACH
00	1/8 to 1 1/2	6	\$2.85
0	1/8 to 2 1/2	12	\$3.60
3	1/8 to 4 1/2	27	\$8.40

### NYE CHAIN VISE

With wedge attachment, made so that wedge, saddle and chain are one complete unit which makes loss of parts impossible. Complete with 40 inch steel chain. Holds 1/8 to 2 inch pipe.

★ NET EACH ... \$6.00



### HANDY-ANDY VISE STAND



Fig. 3355

Strong, rigid, portable, folding. All parts permanently attached. Accommodates hinged and chain vises without drilling. Has bending block to bend up to 3/4 in. pipe. Openings for holding stocks and wrenches. Ht. 36 in. Wt. 32 lbs.

Stand only ....★NET EACH, \$12.00  
With Vise .....★NET EACH, 15.25

### PARKER ORIOLE VISE

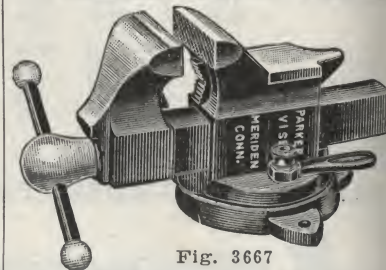


Fig. 3667

For general utility work. Swivel base. Screw enclosed. Hardened tool steel pipe jaws. Handy anvil. Strong. Compact. Weight, 18 pounds. 3 1/2 inch jaw. Opens 4 inches.

★ NET EACH, \$4.60

### CLAMP VISES

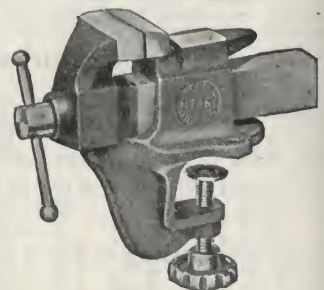


Fig. 4576

Sturdy. For light use. Heavy machine-cut guide screw operates in large malleable guide nut. Reinforced walls. Fastened with wheel clamp screw, or with bolts.

Size Jaw	Spread Inches	Shpg. Wt. Pounds	★NET EACH
2	2 1/8	4 1/4	\$1.60
2 1/2	2 1/4	6 1/2	\$2.20
3	2 1/2	9	\$3.00

### SIMPLEX UTILITY VISE



Fig. 5320

For light shop, garage, home use, etc. Screw is enclosed in a steel slide. Heavy front and back jaw castings and strong steel channel slide. Anvil with horn. The pipe jaws are part of the vise. Removable jaw inserts.

Size No.	Width Jaw, Ins.	Base	Pounds, Boxed	★NET EACH
3	3	Plain	11	\$1.65
100	3	Swivel	12	\$2.25
350	3-1/2	Swivel	19	\$3.40
400	4	Swivel	25	\$5.65
500	5	Swivel	29	\$6.40

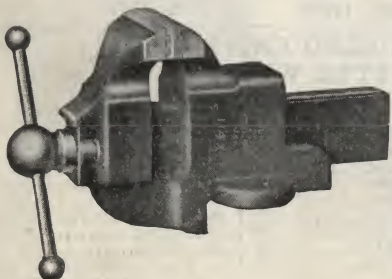
### ATHOL GARAGE AND FARM VISE

Fig. 5319

A mighty dependable vise for the garages, farms, etc. Solid steel jaw face welded on. Semi-steel body. BUTTRESS thread screw. Stationary base.

Mfrs. No.	Jaw Width	Jaws Open	Weight Lbs.	LIST EACH
113X	3	3-3/4	14	\$6.35
113-1/2X	3-1/2	4-3/8	20-1/2	\$7.60
114X	4	5-1/4	28	\$8.75
114-1/2X	4-1/2	6-1/4	37-1/2	\$10.00

DISCOUNT ..... 27% OFF





## PRENTISS VISES

### PRENTISS 'BULL DOG' VISES—New Models

The metal is scientifically distributed for the greatest possible strength and convenience in use. Each size is exactly proportioned in every dimension so that from the smallest to the largest vise they are relatively identical.

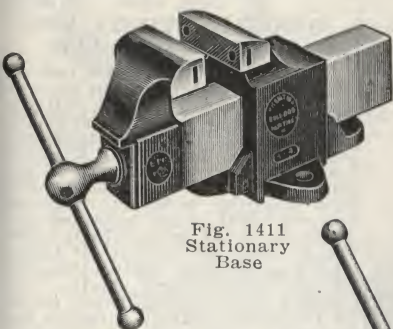


Fig. 1411  
Stationary  
Base

Detachable and interchangeable alloy steel jaw faces. Main screw is one piece cold rolled steel with forged head. Steel lever with forged ball ends. All parts are finished to close tolerances. Guaranteed against defects in workmanship or material.

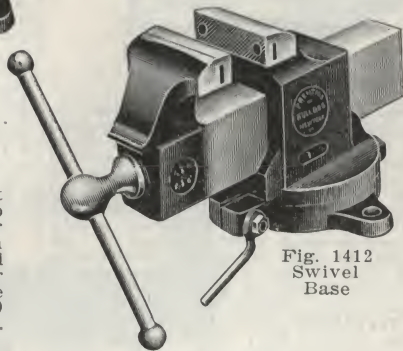


Fig. 1412  
Swivel  
Base

**Fig. 1412. Swivel Base**  
The swivel base is a split ring squeezed against the hub on the vise body. Has greater holding power and freer action than any other swivel base and is easier to operate. A quarter turn on the lever will let the vise rotate freely through 360 degrees or tighten immovably.

Vise No.	Old No.	Jaw Width, Inches	Jaws Open, Inches	Wt., Lbs.	LIST EACH
511	211	2-1/2	3-1/2	14	\$9.00
512	50	3	4	22	\$10.00
513	51	3-1/2	5	28	\$11.25
514	52	4	6	42	\$12.75
515	53	4-1/2	7	55	\$15.50
516	54	5	8	72	\$20.00
517	55	5-1/2	9	100	\$30.00
518	56	6	10	135	\$39.00
519	57	7	12	210	\$55.00

Vise No.	Old No.	Jaw Width, Inches	Jaws Open, Inches	Wt., Lbs.	LIST EACH
521	212	2-1/2	3-1/2	18	\$12.00
522	90	3	4	28	\$13.00
523	91	3-1/2	5	36	\$15.00
524	92	4	6	52	\$17.00
525	93	4-1/2	7	65	\$20.00
526	94	5	8	85	\$30.00
527	95	5-1/2	9	115	\$38.00
528	96	6	10	155	\$52.00
529	97	7	12	235	\$70.00

### PRENTISS MACHINISTS' VISES

With Swivel Back Jaw and Swivel Base

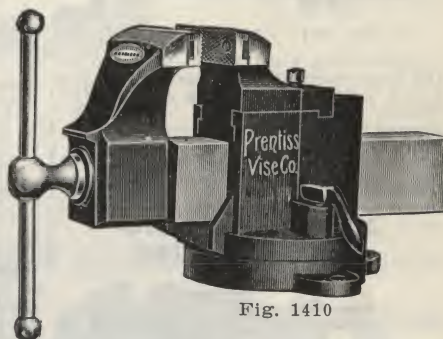


Fig. 1410

The SWIVEL BACK JAW of this vise automatically adjusts itself and holds an object of any shape firm. With back jaw pin inserted, it becomes a parallel solid jaw vise. The SWIVEL BOTTOM enables the operator to instantly adjust vise right or left by means of ratchet pin on side of vise, rendering it solid and firm at any desired angle.

Vise No.	Jaw Width, Inches	Jaws Open, Inches	Weight, Pounds	LIST EACH
18	2-5/8	3-1/2	17	\$16.00
19	3-1/2	4-3/4	32	\$20.00
19-1/2	4	5-1/4	46	\$24.00
20	4-1/2	6	65	\$28.00
21	5-1/4	8	109	\$44.00
22	6	9	168	\$60.00
23	7	11	207	\$75.00

**DISCOUNT** ..... **10% OFF**

## PARKER VISES

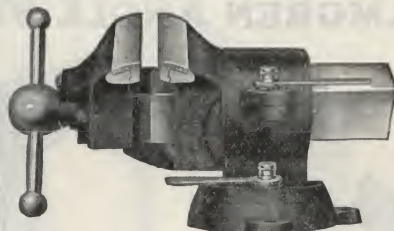
### Parker Vise Features

**RENEWABLE STEEL JAWS** milled to fit, and pinned on covering the entire top of the vise with steel.

**SLIDE STRENGTHENER.** A solid steel bar cast in the slide makes the slide practically unbreakable. The slide is again strengthened by a solid under portion instead of a hollow casting.

**HANDLE 'STAYS PUT'** anywhere due to set screw and spring in the handle.

**SWIVEL GRIPS LIKE A GRIZZLY.** Gripping power 360 degrees of the base due to expansion of a ring.



### PARKER

#### 'DOUBLE SWIVEL' VISE

Fig. 5314

#### EXTRA HEAVY

Mfrs. No.	Jaw Width, Inches	Vise Opens, Inches	Weight, Pounds	LIST EACH
429	3-1/2	3-1/2	47	\$27.00
439	4	6	67	\$32.00
449	4-1/2	7-1/2	87	\$39.00

### PARKER "BIG BEAR" SERVICE VISES

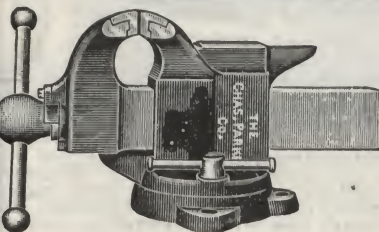


Fig. No. 3181

Swivel Base  
A strongly built vise for heavy service.

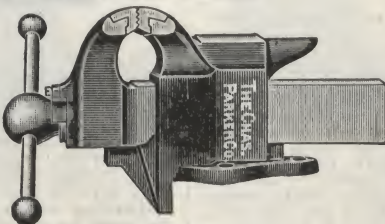


Fig. No. 2985

Stationary Base  
Renewable steel jaws, solid under-portion.

#### LIST PRICES EACH

No.	Wt., Lbs.	Jaw, In.	Vise Opens, In.	List Each
334	89	4	5 1/2	\$21.50
335	112	5	6	\$32.00

#### LIST PRICES EACH

No.	Wt., Lbs.	Jaw, In.	Vise Opens, In.	List Each
134	76	4	5 1/2	\$17.50
135	102	5	6	\$24.00

### PARKER'S COMBINATION PIPE VISE

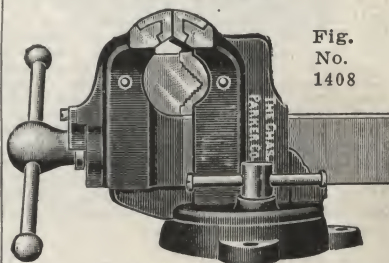


Fig.  
No.  
1408

No.	Width of Jaws, In.	Max. Opening, In.	Takes Pipe, In.	Wt., Lbs.	List Each
87	3	3	1/2 to 2	47	\$17.50
88	4 1/2	5	1/2 to 3	71	\$24.00
288 1/2	5	6	1/2 to 4	118	\$38.00
289 1/2	6	9 1/2	1/2 to 6	185	\$60.00

**DISCOUNT** ..... **10% OFF**



## ATHOL DRILL PRESS & MILLING MACHINE VISE



Fig. 5317. Mfrs. 913-1/2

Made with steel jaws. The top of the base is machined. Steel jaws are 3-1/2 inches wide. Jaws open, 4-1/2 inches. One jaw has a vertical V-groove for holding round stock. Weight, 13-3/4 pounds.

LIST EACH, \$8.00

DISCOUNT ..... 10% OFF

## ATHOL MILLING MACHINE VISE



Fig. 5318

With removable swivel indexing base. The base of the vise and the bottom of the swivel indexing base have milled 5/8 inch keyways for lining up. Range of 180° indexing, accurately cut. Semi-steel casting. The jaw facings are hardened tool steel and ground. Screw has BUTTRESS thread. Removable handle.

Mfrs. No.	Jaw Width	Jaws Open	Jaw Depth	LIST EACH
1024PL	4	3-1/8	1-3/8	\$30.50
1026PL	6	4	1-5/8	\$38.00

### WITHOUT SWIVEL BASE

Mfrs. No.	Jaw Width	Jaws Open	Jaw Depth	LIST EACH
1024SW	4	3-1/8	1-3/8	\$35.00
1026SW	6	4	1-5/8	\$45.00

### WITH SWIVEL BASE

Mfrs. No.	Jaw Width	Jaws Open	Jaw Depth	LIST EACH
1024SW	4	3-1/8	1-3/8	\$35.00
1026SW	6	4	1-5/8	\$45.00

DISCOUNT ..... 20% OFF

## YANKEE VISES

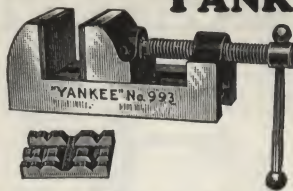


Fig. Y993. Without Swivel Base



Fig. Y1993. With Swivel Base

Without swivel base they can be used on the work bench, drill press and other machines. When used with the swivel base on the bench, the vise can be quickly detached for use on drill presses, etc.; this permits continuous operations. Vises are accurately machined so they may be used on the side, end, or base. Hardened steel plates on the face of the jaw. Hardened steel block with V-shaped grooves for holding round stock. ACME fine pitch thread.

### WITHOUT SWIVEL BASE

Size No.	Y991	Y992	Y993	Y994
Weight, Lbs.	1 1/2	3 1/2	9 1/2	28 3/4
LIST EACH	\$3.80	\$5.00	\$9.30	\$20.70

### WITH SWIVEL BASE

Size No.	Y1991	Y1992	Y1993	Y1994
Base, Diam.	2 1/2	3 1/2	4 1/2	6 1/2
Height, Ins.	3 1/2	4 1/2	6 1/2	7 1/2
Weight, Lbs.	2 1/2	5 1/2	13 1/2	41
LIST EACH	\$5.00	\$7.50	\$12.50	\$28.90

### DIMENSIONS

	Y991	Y992	Y993	Y994
Base, Length	3 3/4	4 7/8	7 1/4	10 1/2
Base, Width	1 1/2	2	2 3/4	4
Jaws, Opening	1 1/2	1 1/2	3 1/2	4
Jaws, Depth	7/8	1 1/4	1 1/2	2 1/2
Jaws, Width	1 1/2	2	2 3/4	4
Height, Inches	1 1/2	2 1/2	3	4 1/2
Length, Inches	4 1/2	6	8 3/4	12 1/4

### DISCOUNT

1 to 5	40% OFF
6 or More	40-10% OFF

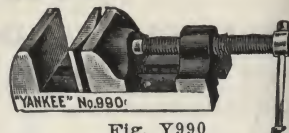


Fig. Y990

## GENERAL UTILITY VISE WITH SWIVEL JAW

For use with drill press, machining operations; or can be securely fastened to work bench with C clamp or screws. Base and sides accurately machined to hold work squarely on face plate. V groove in front jaw; round work is held rigid and parallel. Tapered pieces are securely held by removable swivel steel, case hardened jaw. Base is 5-3/4 inches long. Jaws open, without swivel, 3 inches. Jaws open with swivel inserted, 2-5/8 inches. Jaw depth, 1-3/8 inches. Jaw width, 2-3/8 inches. 6-3/4 inches overall. 2 inches high overall.

LIST EACH, \$4.40

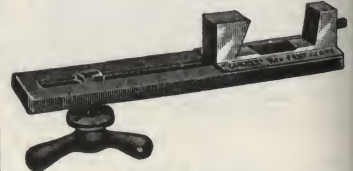


Fig. Y2992

## 'YANKEE' VISE CLAMPS

Increases the utility of Yankee Vises. Holds work rigidly for drilling and other machining operations. Work can be shifted to any handy position for tapping, filing, etc. Slotted for a 3/8 inch machine bolt.

Size No.	For Vises	Length Inches	LIST EACH
Y2992	Y992-Y992	9-3/4	\$1.80
Y2993	Y993-Y1993	10-1/2	\$2.40

## PALMGREN ANGLE VISES



Fig. 4904

For general shop use, production, tool work, drilling, milling, filing, fitting, and marking. It permits setting up angle work accurately and quickly, without the use of clamps, wedges or make-shift methods. It can be used like an ordinary vise when locked to horizontal position. Accurately graduated for angle work. Can be raised to 90 degrees. Parts are accurately machined. The base, body and sliding jaw are semi-steel castings. Adjusting screw has fine pitch thread. Jaws are 2-1/2 inches wide by 1-7/16 inches deep. Opening is 3 inches. Weights 9-1/2 pounds.

**SWIVEL BASE.** Slotted to fit machine table slots. Accurately graduated over entire circle or 360 degrees. With locking screw, wrench and hardened blocks.

**MODEL O.** Grooved vertically and horizontally for holding round pieces.

LIST EACH, \$10.00

With Swivel Base ..... LIST EACH, \$17.50

**MODEL OO.** With hardened and ground steel jaws for holding flat pieces.

LIST EACH, \$12.00

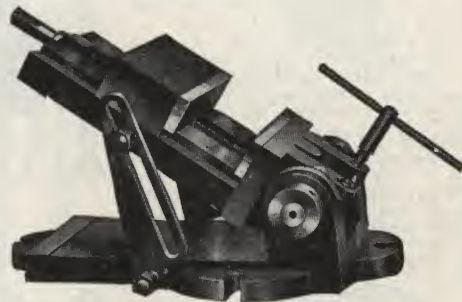
With Swivel Base ..... LIST EACH, \$19.50

**MODEL OOO.** With hardened and ground steel jaws grooved for holding round pieces.

LIST EACH, \$13.00

With Swivel Base ..... LIST EACH, \$20.50

### DISCOUNT

HEAVY DUTY  
Fig. 4905

Precision built, quick adjusting, with jaws of high grade tool steel, hardened and ground. For quick and accurate set-ups, and are ruggedly built for heavy-duty service, such as Milling, Drilling, Grinding, and checking and for layout work. Accurately graduated in degrees. Quickly adjusted to any angle and will stay locked under the most severe service. Hinge pin and screws are hardened. Extra heavy acme thread adjusting screw with renewable screw bushing. Can be used as an ordinary vise when lowered to horizontal position.

Vise No.	Width Jaws Inches	Opening Jaws Inches	Depth Jaws Inches	Weight Pounds	LIST EACH
2	4	4	1-1/2	34	\$90.00
3	6	6	1-7/8	95	\$150.00
4	8	8	2-1/2	145	\$190.00
2S	4	4	1-1/2	46	\$115.00
3S	6	6	1-7/8	123	\$185.00
4S	8	8	2-1/2	188	\$235.00

### WITH SWIVEL BASE

25% OFF



**CARRIAGE AND 'C' CLAMPS****ALLEN MALLEABLE CARRIAGE CLAMPS**

Fig. No. 1561A

Opening, Inches	Depth of Throat	LIST DOZEN
0-2 1/2	1 1/16	\$ 9.00
0-3	2 1/8	10.00
0-4	2 7/16	12.00
0-5	2 1/2	15.00
0-6	2 7/8	18.00

DISCOUNT ..... 50-5% OFF

Full size, strong, accurate COLD DRAWN STEEL SCREWS of large diameter with durable, deep coarse threads. Highest grade malleable iron frames, strong and rigid. Ball and socket swivel. Black enamel finish. Bright screws.

**LIGHT DROP FORGED STEEL 'C' CLAMPS**

Fig. 4325

For work that does not demand great strength. Tempered to prevent springing.

Size Number	Capacity, Inches	Screw to Back	Screw Diameter	Weight, Pounds	LIST EACH
60	0-2	1 1/4	1 1/8	1 1/2	\$1.50
61	0-3	2	1 1/2	1 1/2	1.80
62	0-4	2 1/2	1 3/8	2 1/2	2.20
63	0-6	3	1 3/8	4 1/2	3.00
64	0-8	3 1/2	1 3/8	5 1/2	4.00
65	0-10	3 3/4	1 3/8	7 1/2	5.00
66	0-12	4	1 3/8	9 1/2	6.50

DISCOUNT ..... 55% OFF

**ALLEN'S MALLEABLE MACHINIST'S CLAMPS**

Clamp is of extra heavy design and will stand the severest test. Frame is made of best malleable iron. Screw is of cold drawn steel, 3/4" diameter, with deep cut "Acme" type threads, and is provided with vise-type handle and oscillating tip. Enamel finish.



Fig. No. 3469

No.	Opens, Maximum	Inches, Minimum	Depth, Throat, In.	★ NET EACH
M1	2	Close	2 1/2	\$1.55
M2	3	Close	2 1/2	\$1.75
M3	4	Close	2 1/2	\$2.00
M4	5	1	2 1/2	\$2.20
M5	6	2	2 1/2	\$2.40
M6	8	4	2 1/2	\$2.85
M7	10	6	2 1/2	\$3.30
M8	12	8	2 1/2	\$3.70

**HEAVY DROP FORGED STEEL 'C' CLAMPS**

Fig. 4326

Square head screws without swivels. Extra heavy throughout.



Size Number	Capacity, Inches	Screw to Back	Screw Diameter	Weight, Pounds	LIST EACH
110	0- 3/4	3/4	5/16	1/4	\$ 1.00
111	0-1 1/4	1	5/8	1 1/2	1.50
112	0-1 3/4	1 1/2	5/8	1 1/2	2.50
113	0-2 1/4	1 3/4	5/8	3 1/2	3.50
114	0-3 1/4	2 1/2	5/8	6 1/2	5.00
115	0-4 1/2	2 3/4	5/8	10	6.50
116	0-5 1/2	3 1/2	5/8	12 1/2	8.00
117	0-6 1/2	3 3/8	1	17 1/2	10.00
118	0-8 1/2	3 3/8	1 1/8	26 1/2	14.00
119	5 1/2-10 1/2	4	1 1/8	33 1/2	19.00
120	6 3/4-12 1/2	4 1/2	1 1/4	43 1/2	25.00

DISCOUNT ..... 45% OFF

**SHELDON ARBOR PRESSES****WITH STANDARD BOLSTER PLATES**

Made of semi-steel. The rams and pinions are alloy steel, and heat treated for maximum strength. Large stub tooth is used on rack and pinion. Size 3R has ratchet lever. Sizes 4 and 45 have combination ratchet and compound lever.



Fig. 5315

Number of Press	1	10	2	2A	3	3R	4	45
Largest Diam. Press will take	7	9	11	11	15	15	19-1/2	21
Largest Diam. Mandrel, In.	1-1/8	1-1/4	1-3/4	..	2-1/2	2-1/2	3-1/8	3-1/8
Height over Plate, Inches	4-1/4	5-3/4	9-3/4	..	13-1/2	13-1/2	18	26
Maximum Height will take	4-3/4	6-1/4	10-1/2	15	14-1/2	14-1/2	19-1/2	27-1/4
Height of Frame, Inches	9-1/8	11-1/2	18-1/2	23	26-1/4	26-1/4	33	60
Size of Ram, Round, Inches	1	1-1/4	1-1/2	1-1/2	1-7/8	1-7/8	2-1/8	2-1/8
Movement of Ram, Inches	5	6-1/2	12	17-1/4	16-1/2	16-1/2	21	21
Overage, ... to 1	25	30	35	35	48	72	60-120	60-120
Pressure, Tons	3/4	1	2	2	5	7-1/2	10	10
Base Width, Inches	4	4	6	7	8	8	11	24
Base Length, Inches	9-3/4	11-1/2	17	17	20	20	24	32
Net Weight, Pounds	17	25	95	95	160	200	400	1050
NET—Plain Lever	\$9.00	\$12.00	\$20.00	\$22.00	\$30.00	\$40.00	\$75.00	\$175.00
NET—14 In. Pilot Wheel	....	....	\$24.00	\$26.00	\$34.00	....	....	....

**FLOOR STANDS**

Height, Inches	36	36	35	35	30
Net Weight, Pounds	150	150	170	170	240
NET—STAND ONLY	\$15.00	\$15.00	\$20.00	\$20.00	\$30.00



Fig. 5316. Mfrs. 33 Series

Regularly furnished with solid platen (plain top). Can also be furnished with hole, SPECIFY SIZE, in the platen directly under the ram. Largest diameter press will take is 18 inches. Height over platen, to ram, 0-18 inches. Size of round ram, 1-7/8 by 25 inches. Height of frame, 31 inches. Shipping weights, 240 to 350 pounds.

**★ NET EACH**

Size No.	Platen Size Inches	With Plain Lever	With 14 Inch Ratchet Lever	Pilot Wheel
33=10	10 by 10	\$42.00	\$52.00	\$40.00
33=12	12 by 12	\$44.00	\$54.00	\$48.00
33=14	14 by 14	\$46.00	\$56.00	\$50.00
33=16	16 by 16	\$48.00	\$58.00	\$52.00



# ARMSTRONG LATHE TOOLS

## TOOL HOLDERS

One Tool Holder with a few cutters, which can be quickly and cheaply made from the bar by any machinist, will do any job on the lathe or shaper; roughing, facing, finishing corner and fillet work. Saves all forging. Makes one pound of high speed tool steel equal to 10 pounds in forged tools. Complete with tool holder, wrench, and one high speed cutter bit.



Fig. 1497

### STRAIGHT SHANK

Mfrs. Number	Size of Holder, Inches	Size of Cutter, Inch, Square	Extra High Speed Bit	LIST EACH COM- PLETE
000-S	$\frac{1}{2} \times \frac{1}{2} \times 4$	$\frac{3}{16}$	\$ 0.15	\$ 2.70
00-S	$\frac{1}{2} \times \frac{3}{4} \times 4\frac{1}{2}$	$\frac{3}{16}$	.15	\$ 2.70
0-S	$\frac{3}{4} \times \frac{3}{4} \times 5$	$\frac{1}{4}$	.20	\$ 2.85
1-S	$\frac{1}{2} \times 1 \times 6$	$\frac{3}{16}$	.35	\$ 3.25
2-S	$\frac{3}{8} \times 1 \times 6 \times 7$	$\frac{3}{8}$	.55	\$ 4.00
3-S	$\frac{3}{4} \times 1 \times 8 \times 8$	$\frac{1}{2}$	.90	\$ 5.40
4-S	$\frac{1}{2} \times 1 \times 8 \times 9$	$\frac{1}{2}$	1.30	\$ 6.90
5-S	1 x2 x11	$\frac{3}{8}$	2.35	\$ 9.75
6-S	$1\frac{1}{4} \times 2\frac{1}{4} \times 13$	$\frac{3}{4}$	3.85	\$13.50
7-S	$1\frac{1}{2} \times 2\frac{1}{2} \times 16$	$\frac{7}{8}$	5.85	\$22.50
750-S	$1\frac{3}{8} \times 2\frac{3}{4} \times 18$	1	8.35	\$33.00
800-S	$1\frac{3}{4} \times 3 \times 20$	$1\frac{1}{8}$	11.35	\$42.75

DISCOUNT.....20% OFF



Fig. 1498

### LEFT-HAND OFF-SET

Mfrs. Number	Size of Holder, Inches	Size of Cutter, Inch, Square	Extra High Speed Bit	LIST EACH COM- PLETE
000-L	$\frac{1}{2} \times \frac{1}{2} \times 4$	$\frac{3}{16}$	\$ 0.15	\$ 2.70
00-L	$\frac{1}{2} \times \frac{3}{4} \times 4\frac{1}{2}$	$\frac{3}{16}$	.15	\$ 2.70
0-L	$\frac{3}{4} \times \frac{3}{4} \times 5$	$\frac{1}{4}$	.20	\$ 2.85
1-L	$\frac{1}{2} \times 1 \times 6$	$\frac{3}{16}$	.35	\$ 3.25
2-L	$\frac{3}{8} \times 1 \times 6 \times 7$	$\frac{3}{8}$	.55	\$ 4.00
3-L	$\frac{3}{4} \times 1 \times 8 \times 8$	$\frac{1}{2}$	.90	\$ 5.40
4-L	$\frac{1}{2} \times 1 \times 8 \times 9$	$\frac{1}{2}$	1.30	\$ 6.90
5-L	1 x2 x11	$\frac{3}{8}$	2.35	\$ 9.75
6-L	$1\frac{1}{4} \times 2\frac{1}{4} \times 13$	$\frac{3}{4}$	3.85	\$13.50
7-L	$1\frac{1}{2} \times 2\frac{1}{2} \times 16$	$\frac{7}{8}$	5.85	\$22.50
750-L	$1\frac{3}{8} \times 2\frac{3}{4} \times 18$	1	8.35	\$33.00
800-L	$1\frac{3}{4} \times 3 \times 20$	$1\frac{1}{8}$	11.35	\$42.75

DISCOUNT.....20% OFF



Fig. 1499

### RIGHT-HAND OFF-SET

Mfrs. Number	Size of Holder, Inches	Size of Cutter, Inch, Square	Extra High Speed Bit	LIST EACH COM- PLETE
000-R	$\frac{1}{2} \times \frac{1}{2} \times 4$	$\frac{3}{16}$	\$ 0.15	\$ 2.70
00-R	$\frac{1}{2} \times \frac{3}{4} \times 4\frac{1}{2}$	$\frac{3}{16}$	.15	\$ 2.70
0-R	$\frac{3}{4} \times \frac{3}{4} \times 5$	$\frac{1}{4}$	.20	\$ 2.85
1-R	$\frac{1}{2} \times 1 \times 6$	$\frac{3}{16}$	.35	\$ 3.25
2-R	$\frac{3}{8} \times 1 \times 6 \times 7$	$\frac{3}{8}$	.55	\$ 4.00
3-R	$\frac{3}{4} \times 1 \times 8 \times 8$	$\frac{1}{2}$	.90	\$ 5.40
4-R	$\frac{1}{2} \times 1 \times 8 \times 9$	$\frac{1}{2}$	1.30	\$ 6.90
5-R	1 x2 x11	$\frac{3}{8}$	2.35	\$ 9.75
6-R	$1\frac{1}{4} \times 2\frac{1}{4} \times 13$	$\frac{3}{4}$	3.85	\$13.50
7-R	$1\frac{1}{2} \times 2\frac{1}{2} \times 16$	$\frac{7}{8}$	5.85	\$22.50
750-R	$1\frac{3}{8} \times 2\frac{3}{4} \times 18$	1	8.35	\$33.00
800-R	$1\frac{3}{4} \times 3 \times 20$	$1\frac{1}{8}$	11.35	\$42.75

DISCOUNT.....20% OFF

## HIGH SPEED TOOL BITS

Fig. 4404

Squares and flats for the tool holders shown above.

3/16 Inch .....★ NET POUND, \$2.25  
Other Sizes ....★ NET POUND, \$1.90  
5 Pounds or More.....DEDUCT 10%

## CARBIDE TOOL HOLDERS FOR ARMIDE CUTTERS



Fig. 4395

Heavy-necked. Rigid. Holds cutters parallel to holder shank. Lower part of holder head extends forward under cutter bit so cutting edge is full and closely supported. For general lathe, planer and shaper use. Holder and wrench. CUTTER IS EXTRA, See Fig. 4396.

Holder Size Inches	For Square Cutter Size	List	For Flat Cutter Size	List
<b>STRAIGHT SHANK</b>				
$\frac{3}{4} \times 1\frac{1}{2} \times 6$	$\frac{1}{4} \times \frac{1}{4}$	\$3.20	$\frac{1}{4} \times \frac{3}{8}$	\$3.80
$\frac{1}{2} \times 1\frac{1}{4} \times 7$	$\frac{3}{8} \times \frac{3}{8}$	\$3.60	$\frac{3}{8} \times \frac{1}{2}$	\$4.40
$\frac{3}{8} \times 1\frac{1}{2} \times 8$	$\frac{3}{8} \times \frac{3}{8}$	\$4.50	$\frac{3}{8} \times \frac{1}{2}$	\$5.40
$\frac{1}{2} \times 1\frac{1}{2} \times 9$	$\frac{3}{8} \times \frac{3}{8}$	\$6.00	$\frac{3}{8} \times \frac{1}{2}$	\$7.20
$\frac{3}{8} \times 1\frac{1}{2} \times 10$	$\frac{3}{8} \times \frac{3}{8}$	\$7.60	$\frac{3}{8} \times \frac{1}{2}$	\$9.20
1 x2 $\frac{1}{2}$ x12	$\frac{3}{8} \times \frac{3}{8}$	\$10.80	$\frac{3}{8} \times \frac{1}{2}$	\$12.90

### RIGHT HAND OFF-SET

$\frac{3}{4} \times 1\frac{1}{2} \times 6$	$\frac{1}{4} \times \frac{1}{4}$	\$3.20	$\frac{1}{4} \times \frac{3}{8}$	\$3.80
$\frac{1}{2} \times 1\frac{1}{4} \times 7$	$\frac{3}{8} \times \frac{3}{8}$	\$3.60	$\frac{3}{8} \times \frac{1}{2}$	\$4.40
$\frac{3}{8} \times 1\frac{1}{2} \times 8$	$\frac{3}{8} \times \frac{3}{8}$	\$4.50	$\frac{3}{8} \times \frac{1}{2}$	\$5.40
$\frac{1}{2} \times 1\frac{1}{2} \times 9$	$\frac{3}{8} \times \frac{3}{8}$	\$6.00	$\frac{3}{8} \times \frac{1}{2}$	\$7.20
$\frac{3}{8} \times 1\frac{1}{2} \times 10$	$\frac{3}{8} \times \frac{3}{8}$	\$7.60	$\frac{3}{8} \times \frac{1}{2}$	\$9.20
1 x2 $\frac{1}{2}$ x12	$\frac{3}{8} \times \frac{3}{8}$	\$10.80	$\frac{3}{8} \times \frac{1}{2}$	\$12.90

### LEFT HAND OFF-SET

$\frac{3}{4} \times 1\frac{1}{2} \times 6$	$\frac{1}{4} \times \frac{1}{4}$	\$3.20	$\frac{1}{4} \times \frac{3}{8}$	\$3.80
$\frac{1}{2} \times 1\frac{1}{4} \times 7$	$\frac{3}{8} \times \frac{3}{8}$	\$3.60	$\frac{3}{8} \times \frac{1}{2}$	\$4.40
$\frac{3}{8} \times 1\frac{1}{2} \times 8$	$\frac{3}{8} \times \frac{3}{8}$	\$4.50	$\frac{3}{8} \times \frac{1}{2}$	\$5.40
$\frac{1}{2} \times 1\frac{1}{2} \times 9$	$\frac{3}{8} \times \frac{3}{8}$	\$6.00	$\frac{3}{8} \times \frac{1}{2}$	\$7.20
$\frac{3}{8} \times 1\frac{1}{2} \times 10$	$\frac{3}{8} \times \frac{3}{8}$	\$7.60	$\frac{3}{8} \times \frac{1}{2}$	\$9.20
1 x2 $\frac{1}{2}$ x12	$\frac{3}{8} \times \frac{3}{8}$	\$10.80	$\frac{3}{8} \times \frac{1}{2}$	\$12.90

DISCOUNT.....20% OFF

Specify: For Square or Flat Cutter; Size of Holder; and whether straight, Right or Left Holder.

## ARMIDE CUTTERS

Cutter Bits Tipped With "ARMIDE." For Use With Carbide Holders.



Fig. 4396



A—Right hand turning and facing.  
B—Left hand turning and facing.  
C—Square Nose.  
D—Round Nose, turning and facing.  
E—60 degree threading.

Armide is an improved Carbide alloy. Keeps a keen edge. Extremely hard. Tensile strength of 250,000 pounds to the square inch. Wear-resisting. Tough. Withstands shocks, impact and internal strains. Cutting edges DO NOT GROOVE but run cool and WILL NOT ALLOY WITH HOT IRON OR STEEL CHIPS. For high speeds. For general metal cutting, also tough materials such as scaled cast iron, alloy steels, hardened steels (without annealing), brass, bronze, bakelite, hard rubber, etc.

### SQUARE BODY

Size Inches	List Each	Size Inches	List Each
$\frac{1}{4} \times \frac{1}{4} \times 1\frac{3}{4}$	\$9.00	$\frac{1}{4} \times \frac{3}{8} \times 1\frac{3}{4}$	\$9.00
$\frac{3}{8} \times \frac{3}{8} \times 2\frac{1}{2}$	\$10.50	$\frac{3}{8} \times \frac{3}{8} \times 2\frac{1}{2}$	\$10.50
$\frac{3}{8} \times \frac{3}{8} \times 2\frac{1}{2}$	\$11.50	$\frac{3}{8} \times \frac{3}{8} \times 2\frac{1}{2}$	\$11.50
$\frac{3}{8} \times \frac{3}{8} \times 3$	\$12.50	$\frac{3}{8} \times \frac{3}{8} \times 3$	\$12.50
$\frac{1}{2} \times \frac{1}{2} \times 3\frac{1}{2}$	\$14.50	$\frac{1}{2} \times \frac{1}{2} \times 3\frac{1}{2}$	\$14.50
$\frac{3}{8} \times \frac{3}{8} \times 4$	\$18.50	$\frac{3}{8} \times \frac{3}{8} \times 4$	\$18.50

DISCOUNT.....20% OFF

## CUTTING-OFF HOLDERS

Cutter is adjustable to any desired clearance, has greatest possible support. Cutters are beveled on both sides and are held at an angle giving side clearance and top rake needed for a clean, smooth cut. Complete with tool, wrench, and one high speed cutter.



FIG. 1496. STRAIGHT SHANK

Mfrs. Number	Size of Holder, Inches	Cutter Size, Inches	Extra H. S. Cutter	LIST COM- PLETE
19-S	$\frac{5}{16} \times \frac{3}{4} \times 4\frac{1}{2}$	$\frac{3}{16} \times \frac{1}{2}$	\$0.60	\$ 2.85
20-S	$\frac{3}{8} \times \frac{3}{4} \times 5$	$\frac{3}{16} \times \frac{1}{2}$	.65	\$ 3.00
21-S	$\frac{1}{2} \times 1 \times 6$	$\frac{1}{4} \times \frac{3}{4}$	.90	\$ 3.60
22-S	$\frac{3}{8} \times 1 \times 6 \times 7$	$\frac{1}{4} \times \frac{3}{4}$	1.30	\$ 4.50
23-S	$\frac{3}{4} \times 1 \times 8 \times 8$	$\frac{3}{8} \times 1$	2.15	\$ 6.00
24-S	$\frac{1}{2} \times 1 \times 8 \times 9$	$\frac{3}{8} \times 1\frac{1}{2}$	2.90	\$ 7.50
25-S	1 x2 x10	$\frac{1}{4} \times 1\frac{1}{2}$	4.00	\$ 9.75
26-S	$1\frac{1}{4} \times 2\frac{1}{4} \times 11$	$\frac{3}{4} \times 1\frac{3}{8}$	4.65	\$11.65

DISCOUNT.....20% OFF



FIG. 1494. RIGHT HAND OFF-SET

Mfrs. Number	Size of Shank, Inches	Size of Cutter, Inches	Extra H. S. Cutter	LIST COM- PLETE
29-R	$\frac{5}{16} \times \frac{3}{4}$	$\frac{3}{16} \times \frac{1}{2}$	\$0.60	\$ 2.85
30-R	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{16} \times \frac{1}{2}$	.65	\$ 3.00
31-R	$\frac{1}{2} \times 1$	$\frac{1}{4} \times \frac{3}{4}$	.90	\$ 3.60
32-R	$\frac{3}{8} \times 1 \times 6$	$\frac{3}{8} \times \frac{1}{2}$	1.30	\$ 4.50
33-R	$\frac{3}{4} \times 1 \times 8$	$\frac{3}{8} \times 1$	2.15	\$ 6.00
34-R	$\frac{1}{2} \times 1 \times 8$	$\frac{3}{8} \times 1\frac{1}{2}$	2.90	\$ 7.50
35-R	1 x2	$\frac{1}{4} \times 1\frac{1}{2}$	4.00	\$ 9.75
36-R	$1\frac{1}{4} \times 2\frac{1}{4}$	$\frac{3}{4} \times 1\frac{3}{8}$	4.65	\$11.65

DISCOUNT.....20% OFF



FIG. 1495. LEFT HAND OFF-SET

Mfrs. Number	Size of Shank, Inches	Cutter Size, Inches	Extra H. S. Cutter	LIST COM- PLETE
29-L	$\frac{5}{16} \times \frac{3}{4}$	$\frac{3}{16} \times \frac{1}{2}$	\$0.60	\$ 2.85
30-L	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{16} \times \frac{1}{2}$	.65	\$ 3.00
31-L	$\frac{1}{2} \times 1$	$\frac{1}{4} \times \frac{3}{4}$	.90	\$ 3.60
32-L	$\frac{3}{8} \times 1 \times 6$	$\frac{3}{8} \times \frac{1}{2}$	1.30	\$ 4.50
33-L	$\frac{3}{4} \times 1 \times 8$	$\frac{3}{8} \times 1$	2.15	\$ 6.00
34-L	$\frac{1}{2} \times 1 \times 8$	$\frac{3}{8} \times 1\frac{1}{2}$	2.90	\$ 7.50
35-L	1 x2	$\frac{1}{4} \times 1\frac{1}{2}$	4.00	\$ 9.75
36-L	$1\frac{1}{4} \times 2\frac{1}{4}$	$\frac{3}{4} \times 1\frac{3}{8}$	4.65	\$11.65

DISCOUNT.....20% OFF

## MORSE LATHE CENTERS



Fig. 295M—Carbon Steel

Fig. 1295M—High Speed Steel

Ground to standard Morse tapers. Included angle of point is 60° and ground true.

Morse Taper Shank,	Length, Inches	List Carbon Steel	High Speed Points
0	2 $\frac{3}{8}$	\$0.50	\$1.50
1	3 $\frac{1}{8}$	.60	1.75
2	4 $\frac{1}{8}$	.75	2.50
3	5 $\frac{1}{4}$	1.25	3.25
4	6 $\frac{3}{4}$	1.75	4.75
5	8 $\frac{1}{2}$	3.50	9.25

Carbon Steel.....NET  
High Speed Steel Points 10% OFF



# ARMSTRONG LATHE TOOLS

## ARMSTRONG SPRING CUTTING-OFF HOLDERS

Makes cutting off in a lathe comparatively simple. The "goose neck" form gives the cutter a resiliency that takes up any chatter and **KEEPS THE WORK FROM CLIMBING UP ON THE TOOL** which is the cause of practically all cutting-off tool breakage. Complete with tool, wrench and one high speed cutter.



Fig. 4398

### STRAIGHT SHANK

Mfrs. Number	Shank Size, Inches	Cutter Size, Inches	Extra High Speed Cutter	LIST EACH COM- PLETE
S-20	$\frac{3}{8}$ x $\frac{1}{2}$	$\frac{3}{16}$ x $\frac{5}{8}$	\$0.65	\$4.50
S-21	$\frac{1}{2}$ x $1\frac{1}{8}$	$\frac{1}{8}$ x $\frac{3}{4}$	.90	\$5.40
S-22	$\frac{5}{8}$ x $1\frac{3}{8}$	$\frac{1}{8}$ x $\frac{1}{2}$	1.30	\$6.75
S-23	$\frac{3}{4}$ x $1\frac{5}{8}$	$\frac{1}{16}$ x 1	2.15	\$9.00

DISCOUNT.....20% OFF



Fig. 4399

### RIGHT HAND OFF-SET

Mfrs. Number	Shank Size, Inches	Cutter Size, Inches	Extra High Speed Cutter	LIST EACH COM- PLETE
S-30-R	$\frac{3}{8}$ x $\frac{1}{2}$	$\frac{3}{16}$ x $\frac{5}{8}$	\$0.65	\$4.50
S-31-R	$\frac{1}{2}$ x $1\frac{1}{8}$	$\frac{1}{8}$ x $\frac{3}{4}$	.90	\$5.40
S-32-R	$\frac{5}{8}$ x $1\frac{3}{8}$	$\frac{1}{8}$ x $\frac{1}{2}$	1.30	\$6.75
S-33-R	$\frac{3}{4}$ x $1\frac{5}{8}$	$\frac{1}{16}$ x 1	2.15	\$9.00

DISCOUNT.....20% OFF

Left hand offset furnished at same prices when specified.

## ARMSTRONG PLANER AND SHAPER TOOL HOLDERS



Fig. 4400

Convenient. Efficient. Economical. Cutter can be reversed and tool turned around, throwing the cutting point behind center of tool and working as a goose neck tool. For work in close corners. Can be used at almost any angle. Complete with tool, wrench and one high speed cutter.

\*Shaper sizes.

Mfrs. Number	Holder Size, Inches	Cutter Size, Inches	Extra High Speed Bit	LIST EACH COM- PLETE
40*	$\frac{1}{2}$ x 1 x 6	$\frac{1}{4}$ x $\frac{3}{8}$	\$0.35	\$4.65
401*	$\frac{5}{8}$ x $1\frac{1}{4}$ x 8 $\frac{1}{2}$	$\frac{1}{16}$ x $\frac{1}{16}$	.55	\$6.00
41*	$\frac{3}{4}$ x $1\frac{1}{2}$ x 10	$\frac{3}{8}$ x $\frac{1}{2}$	.80	\$7.85
42	$1\frac{1}{8}$ x $1\frac{3}{4}$ x 13	$\frac{1}{8}$ x $\frac{1}{4}$	1.95	\$12.40
43	$1\frac{1}{2}$ x 2 x 16	$\frac{5}{8}$ x $\frac{1}{2}$	3.35	\$21.75
44	$1\frac{3}{4}$ x $2\frac{1}{4}$ x 19	$\frac{3}{4}$ x 1	5.00	\$39.00
45	$2\frac{1}{8}$ x $2\frac{3}{4}$ x 22	$\frac{1}{8}$ x $1\frac{1}{8}$	8.20	\$57.00

DISCOUNT.....20% OFF

## ARMSTRONG BORING TOOL HOLDERS



Fig. 1492

Bar can be extended from the shank or holder to any desired length, giving the greatest degree of stiffness possible on every job. Complete with holder and bar, straight, 30° and 45° end caps, two high speed cutters and double head wrench.

Mfrs. Number	Shank Size, Inches	Cutter Size, Square	Extra High Speed Cutter	LIST EACH COM- PLETE
00B	$\frac{1}{2}$ x $\frac{3}{4}$	$\frac{3}{16}$	\$0.10	\$4.90
8	$\frac{3}{8}$ x $\frac{7}{8}$	$\frac{3}{16}$	.10	\$4.90
9	$\frac{1}{2}$ x 1	$\frac{1}{4}$	.18	\$5.80
10	$\frac{5}{8}$ x $1\frac{1}{8}$	$\frac{5}{16}$	.30	\$7.65
11	$\frac{3}{4}$ x $1\frac{1}{8}$	$\frac{3}{8}$	.50	\$10.85
12	$\frac{1}{2}$ x $1\frac{3}{4}$	$\frac{1}{16}$	.75	\$16.00
13	1 x 2	$\frac{1}{2}$	1.00	\$22.50

DISCOUNT.....20% OFF

3-Bar Boring Tool, Prices On Request.

## ARMSTRONG SPRING THREADING HOLDERS



Fig. 4401

Combines strength and convenience of adjustment with resiliency. Gives a smooth, finishing cut or thread on tough steels. Complete rigidity when desired for roughing cuts or turning. Cutter can be held at different angles. Complete with tool, high speed V thread cutter and drop forged wrench.

Mfrs. Number	Holder Size, Inches	Cutter Size, Square	Extra High Speed Cutter	LIST EACH COM- PLETE
S-50	$\frac{3}{8}$ x $\frac{1}{2}$ x $5\frac{1}{2}$	$\frac{3}{16}$	\$0.35	\$4.15
S-51	$\frac{1}{2}$ x $1\frac{1}{4}$ x $6\frac{1}{2}$	$\frac{1}{4}$	.45	\$5.00
S-52	$\frac{5}{8}$ x $1\frac{3}{4}$ x $7\frac{1}{2}$	$\frac{5}{16}$	.55	\$6.40
S-53	$\frac{3}{4}$ x $1\frac{5}{8}$ x $8\frac{1}{2}$	$\frac{3}{8}$	.70	\$8.25

DISCOUNT.....20% OFF

## ARMSTRONG THREADING TOOL HOLDERS



Fig. 1550

Cutters require grinding on top edge only remaining true to form and of correct angle for perfect fitting threads. Cutters are backed off for proper clearance. Cutter back is eccentric and bears on a screw, allowing positive and accurate adjustment. Complete with tool, wrench, single point cutter. SPECIFY THREAD, V or U. S. and number of threads to inch.

Mfrs. Number	Holder Size, Inches	Weight Each, Pounds	LIST EACH COM- PLETE
00T	$\frac{1}{2}$ x $\frac{3}{4}$ x 5	$\frac{3}{8}$	\$4.15
50	$\frac{3}{8}$ x $\frac{1}{2}$ x 5	$\frac{1}{4}$	\$4.15
51	$\frac{1}{2}$ x $1\frac{1}{4}$ x 6	$\frac{1}{2}$	\$5.00
52	$\frac{5}{8}$ x $1\frac{3}{4}$ x 7	$\frac{2}{3}$	\$6.40
53	$\frac{3}{4}$ x $1\frac{5}{8}$ x 8	$\frac{3}{4}$	\$8.25
54	$\frac{1}{2}$ x $1\frac{3}{4}$ x 9	$\frac{4}{5}$	\$9.75
55	1 x 2 x 10	$\frac{6}{7}$	\$12.40

DISCOUNT.....20% OFF

## ARMSTRONG KNURLING TOOL HOLDERS



Fig. 1553

Self centering. The knuckle or joint has ample bearing to resist severe strains of end and side thrust.

Mfrs. Number	Tool Size, Inches	Knurl; Diameter, Face and Hole	LIST EACH COM- PLETE
00-K	$\frac{1}{2}$ x $\frac{3}{4}$ x 5	$\frac{5}{8}$ x $\frac{3}{16}$ x $\frac{1}{2}$	\$5.65
0-K	$\frac{3}{8}$ x $\frac{1}{2}$ x $5\frac{1}{2}$	$\frac{5}{8}$ x $\frac{1}{8}$ x $\frac{1}{2}$	\$6.00
1-K	$\frac{1}{2}$ x $1\frac{1}{8}$ x $6\frac{1}{2}$	$\frac{3}{4}$ x $\frac{1}{4}$ x $\frac{1}{2}$	\$6.75
2-K	$\frac{5}{8}$ x $1\frac{3}{8}$ x $7\frac{1}{2}$	$\frac{3}{4}$ x $\frac{1}{4}$ x $\frac{1}{2}$	\$8.00
4-K	$\frac{3}{4}$ x $1\frac{5}{8}$ x 9	1 x $\frac{1}{4}$ x $\frac{1}{2}$	\$14.00

DISCOUNT.....20% OFF



Fig. 4402. Mfrs. 3-K

### WITH REVOLVING HEAD

Revolving head with three pairs of knurls; fine, medium and coarse;

Mfrs. No.	Size of Holder, Inches	Knurl, Diam. Face & Hole	Extra Knurls Pair	LIST EACH COM- PLETE
3K00	$\frac{3}{8}$ x $\frac{1}{2}$ x 5	$\frac{5}{8}$ x $\frac{3}{16}$ x $\frac{1}{2}$	1.00	7.50
3K1	$\frac{1}{2}$ x $1\frac{1}{4}$ x $6\frac{1}{2}$	$\frac{3}{4}$ x $\frac{1}{4}$ x $\frac{1}{2}$	1.00	8.00
3K1	$\frac{1}{2}$ x $1\frac{1}{4}$ x $6\frac{1}{2}$	$\frac{3}{4}$ x $\frac{1}{4}$ x $\frac{1}{2}$	1.15	9.00
3K2	$\frac{5}{8}$ x $1\frac{3}{8}$ x $7\frac{1}{2}$	$\frac{3}{4}$ x $\frac{1}{4}$ x $\frac{1}{2}$	1.15	10.50

DISCOUNT.....20% OFF

## ARMSTRONG LATHE DOGS



Fig. 1557 Bent Tail



Fig. 4403 Clamp Dog

Drop forged special steel, tough and stiff. Alloy steel screws.

Mfrs. Number	Capacity, Inches	Extra Square Head Screw	LIST EACH COM- PLETE
1	$\frac{3}{8}$		\$1.00
2	$\frac{1}{2}$		\$1.10
3	$\frac{3}{4}$		\$1.20
4	1		\$1.40
5	$1\frac{1}{4}$		\$1.70
6	$1\frac{1}{2}$		\$2.00
7	$1\frac{3}{4}$		\$2.40
8	2		\$2.80
9	$2\frac{1}{2}$		\$3.60
10	3		\$4.60
11B	$3\frac{1}{2}$	1.00	\$6.00
12B	4	1.10	\$9.00
13B	5	1.50	\$16.00
14B	6	1.60	\$24.00

### FIG. 1557C. BENT TAIL DOGS With Square Head Screw

1	$\frac{3}{8}$	\$0.20	\$1.00
2	$\frac{1}{2}$	.22	\$1.10
3	$\frac{3}{4}$	.24	\$1.20
4	1	.28	\$1.40
5	$1\frac{1}{4}$	.30	\$1.70
6	$1\frac{1}{2}$	.38	\$2.00
7	$1\frac{3}{4}$	.44	\$2.40
8	2	.52	\$2.80
9	$2\frac{1}{2}$	.66	\$3.60
10	3	.72	\$4.60
11B	$3\frac{1}{2}$	1.00	\$6.00
12B	4	1.10	\$9.00
13B	5	1.50	\$16.00
14B	6	1.60	\$24.00

### FIG. 4403. CLAMP DOGS

11C	$1\frac{3}{4}$	\$0.20	\$3.00
12C	$2\frac{1}{4}$	.30	\$4.00
13C	$2\frac{3}{4}$	.40	\$5.00
14C	$3\frac{1}{2}$	.60	\$7.00

DISCOUNT.....45% OFF



# COLUMBIA TOOL STEEL

IT PAYS TO USE GOOD TOOL STEEL

Specify Grade, Size, Shape and Quantity Wanted

## CLARITE TOOL HOLDER BITS



Fig. 4404

CLARITE Bits are made from bar CLARITE, cut to length, carefully heat treated. CLARITE Bits have capacity for tremendous speed and their great strength and toughness makes heavy feeds and deep cuts possible.

3/16 x 3/16 Inch ..... ★ NET POUND, \$2.25  
Other Sizes ..... ★ NET POUND, \$1.90  
For 5 Pounds or More ..... DEDUCT 10%

## CLARITE HIGH SPEED TOOL STEEL



Fig. 4405

CLARITE is the heavy duty high speed steel adaptable to all the general uses. It has high cutting capacity on lathe, planer and milling work and the newer applications such as, die work, punching, shearing, and hot work operations.

### HARDENING—

Preheat 1500°F. High heat at 2350° Fahrenheit. Bring up to high heat and quench as quickly as possible.

### QUENCH—OIL.

TEMPERING—1050°F. to 1100°F. Hold 1½ to 3 hours.

MARKET—OR PRICES ON APPLICATION

## OILDIE NON-SHRINKING TOOL STEEL

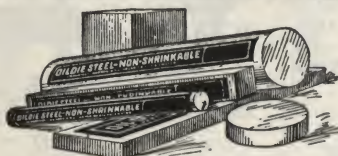


Fig. 4406

OILDIE is a non-deforming, oil hardening alloy steel, for blanking, piercing, shaving, notching and trimming dies, etc. It hardens extremely hard to a great depth, will not change shape in the hardening and gives long life.

HARDENING—1500°F. to 1550°F. Heat slowly and evenly.

### QUENCH—OIL.

TEMPERING—300°F. to 450°F. depending on service required.

MARKET—OR PRICES ON APPLICATION

## SUPERDIE ALLOY TOOL STEEL—HIGH CARBON HIGH CHROME

Fig. 4410

SUPERDIE is a high carbon, high chromium alloy steel with the greatest resistance to cold abrasion of any steel known. It is made for work of excessive abrasion where extreme hardness is required. It is particularly recommended for blanking dies, shaving dies, trimming dies, extrusion and drawing dies, also for burnishing tools, gauges and similar tools.

FURNISHED AT MARKET PRICES—OR PRICES ON APPLICATION

HARDENING—1700°F. to 1750°F. Heat slowly.

### QUENCH—OIL.

TEMPERING—300°F. to 850°F. depending on service required.

## COLUMBIA BUSTER BRAND ALLOY TOOL STEEL



Fig. 4407

BUSTER BRAND Alloy Steel is for use where great shock or great pressure is involved. It is for hand and pneumatic chisels, hot and cold shear blades, hot and cold forming tools, etc. It does not soften in intermittent contact with metals of red heat and will withstand constant temperatures of 700° to 800°F.

HARDENING—1600°F. to 1700°F.

### QUENCH—OIL.

TEMPERING—300°F. to 800°F. for general purposes with higher temperatures for very severe shock or for hot work.

MARKET—OR PRICES ON APPLICATION

## COLUMBIA SPECIAL CARBON TOOL STEEL



Fig. 4408

COLUMBIA SPECIAL is the highest grade of carbon tool steel. It is a steel of high purity that takes a uniform high hardness with a minimum of distortion for a water hardening steel. It is for dies, punches, taps, carbon steel milling and circular cutters and similar uses.

HARDENING—1420°F. to 1450°F. for general purposes.

### QUENCH—Clean water or brine.

TEMPERING—300°F. to 500°F. depending on service required.

MARKET—OR PRICES ON APPLICATION

## COLUMBIA EXTRA CARBON TOOL STEEL



Fig. 4409

COLUMBIA EXTRA is a straight carbon steel of good quality. It is a medium-priced steel for such items as shear blades, punches, dies, forming tools, shop cold chisels and boiler-makers' tools.

HARDENING—1420°F. to 1450°F. for general purposes.

### QUENCH—Clean water or brine.

TEMPERING—300°F. to 550°F. depending on service required.

MARKET—OR PRICES ON APPLICATION



## FILE CARDS



Fig. 2654—STEEL

Colton Steel Back File Cards.  
1 to 5.....★ NET EACH, \$0.55  
6 or More.....★ NET EACH, \$0.50

Fig. 3246—WOOD

Common Wood Back File Cards.  
★ NET EACH, \$0.20  
★ NET DOZEN, \$1.80

NICHOLSON  
FILE CLEANER

Fig. 4901

A combination file cleaner; one side is a card with wire pins; one side is a fibre brush; and a scorer (scraper) held in a recess of the handle by a spring.

★ NET EACH, \$0.75  
★ NET DOZEN, \$7.35

## COMMON FILE HANDLES

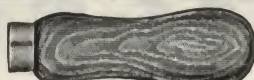


Fig. 2653

No.	For Files, Inches	★ NET DOZEN
1	5 to 6	\$0.24
2	8 to 10	\$0.28
3	12 to 13	\$0.36
4	Extra Large	\$0.40

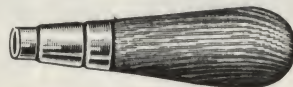
LUTZ FILE HANDLE  
LONG STEEL FERRULE

Fig. 2652

Holds the file tight, will not split, and will outwear many short ferruled handles.

No.	For Files, Inches	★ NET DOZEN	★ NET GROSS
1	3 to 6	\$0.60	\$5.85
2	6 to 8	\$0.70	\$6.60
3	8 to 12	\$0.80	\$7.45
4	12 to 16	\$0.90	\$8.85
5	16 to 20	\$1.05	\$10.55

## SOLDERING IRON HANDLES

Fig. No.	Material	Size, Inches	★ NET DOZEN
1024W	Wood	5 x1-5/16	\$0.75
1024P	Paper	5-1/2x1-3/8	\$1.20

'SKROO-ZON'  
FILE HANDLES

Fig. 3109

Screws on shank of files, etc., cutting its own V thread, holding rigidly. Heavy steel ferrule. Hardwood handle with hollow bore for end of tang.

Size No.	2	3	4	5
Files, Inch	4	5	6	8
LIST DOZEN	\$1.80	\$1.80	\$1.80	\$2.40
Size No.	6	7	8	
For Files, Inch	10	12	14	
LIST DOZEN	\$2.40	\$3.00	\$3.00	
DISCOUNT	33 1/3% OFF			

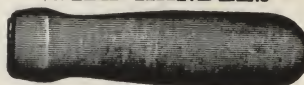
EVER WEAR PAPER  
FILE HANDLES

Fig. 3696

Durable. Made from composition fibre strips. Ferrule inserted 1/2 inch. Elastic grip.

No.	Size Inches	For Files Inches	LIST DOZEN
1	3 x 3/4	3 to 5	\$0.84
2	3-1/2 x 7/8	6 to 8	\$0.96
3	4 x 1	9 to 10	\$1.14
4	4-1/2 x 1-1/8	11 to 12	\$1.32
5	5 x 1-1/4	13 to 14	\$1.50
6	5-1/2 x 1-3/8	Large	\$1.68
1 to 11			25% OFF
1 to 5 Dozen			33 1/3% OFF
6 Dozen or More			40% OFF

## NICHOLSON TUNGSTEN POINT FILE



Fig. 2655

★ NET DOZEN, \$1.00 ★ NET GROSS, \$10.55

Specially prepared teeth for filing tungsten and iridium contact points. Orange colored, flat handle gives firm grip. Handle tip is flattened to serve as a gauge for the spark plug gap. Chisel point end for opening up contact points without disturbing the adjustment.

## NICHOLSON LEAD FLOAT AND WOOD FILES

For filing on wood, lead, babbitt, pewter, and other very soft metals that would easily clog ordinary files. The arrangement of the teeth with the straight angle and far apart is to give greater throat for clearance.



FLAT—Fig. 4902

Length, Inches 6 8 10 12 14 16  
LIST DOZEN \$4.80 \$6.30 \$8.60 \$11.80 \$16.00 \$21.50

DISCOUNTS: Nicholson or Black Diamond Broken Pkg., 40% OFF Full Pkg., 40-12 1/2% OFF  
Arcade Brand Broken Pkg., 50% OFF Full Pkg., 50-10% OFF



HALF ROUND—Fig. 4903

Length, Inches 6 8 10 12 14 16  
LIST DOZEN \$7.00 \$8.50 \$10.70 \$14.10 \$18.50 \$24.70

## GENUINE NICHOLSON FLAT ALUMINUM FILES



Fig. 2817

Genuine Nicholson Brand only. Used by automobile body builders and repairers on aluminum, steel, etc. The peculiar arrangement of the teeth makes it very effective. Rectangular section.

12 Inch LIST DOZEN, \$11.80 14 Inch LIST DOZEN, \$16.00  
DISCOUNTS: Full Package (6) 40-12 1/2% OFF Broken Package 40% OFF

## NICHOLSON BEAVER BRAND FILES —FOR SOFT METALS

For babbitt, brass and other soft metals. Also for wood. The curved teeth free themselves readily from chips. Sharp teeth to ensure rapid filing, a smooth finish and easy operation.



Flat File with tang. Cut on sides only, edges safe uncut.  
12 inch length.....★ NET DOZEN, \$6.70  
14 inch length.....★ NET DOZEN, \$9.35



Half Round File with tang. One side flat and the other side half round.  
12 inch length.....★ NET DOZEN, \$ 8.70  
14 inch length.....★ NET DOZEN, \$11.40



Flat Flexible File without tang. With countersunk holes for fastening to a special curved back handle or block used in surface filing, removing high spots on flat surfaces, etc.  
12 inch length.....★ NET DOZEN, \$ 8.05  
14 inch length.....★ NET DOZEN, \$10.75



Handle for Flat Flexible File without tang.  
12 inch size.....★ NET EACH, \$0.75  
14 inch size.....★ NET EACH, .75



# FILES

## GENUINE NICHOLSON

**Genuine Nicholson Brand.** Warranted. Highest quality product. Made of the best carefully selected high carbon file steel of special analysis, which is made under careful supervision and subjected to the most rigid inspections and tests. Patent increment cut. Genuine Nicholson are the best known and the most popular brand on the market.

**Black Diamond Brand.** Warranted best refined cast steel. The very highest grade and quality and are well and favorably known in every file market throughout the world. Lasting quality.

**Arcade Brand.** Warranted. Improved cut. Special temper. Should a file prove imperfect a new one will be given in exchange free of charge. One of Nicholson's products.

When ordering please specify:—

1. Shape or style.
2. Length (measured exclusive of tang).
3. Cut of teeth; Bastard, Coarse; 2nd Cut, Medium; Smooth, Fine.
4. Brand desired.

Full Packages:—

- 10 inches and smaller, 1 dozen in a box.
- 12 inches and larger, ½ dozen in a box.

For styles, length or cut not listed, prices will be quoted on application.

### FLAT FILES—DOUBLE CUT



Double cut. Of rectangular section. (Proportions 4 to 1.) In common use by machinists, machinery builders, ship and engine builders, repair men, etc. Slightly tapered toward the point in both width and thickness. Are cut on both edges as well as sides. Genuine Nicholson, Black Diamond or Arcade Brands.

		LIST DOZEN							
Length, Inches.		4	5	6	8	10	12	14	16
Flat, Bastard Cut .....	\$3.70	\$3.90	\$4.30	\$5.30	\$7.00	\$ 9.70	\$13.30	\$17.80	\$23.90
Flat, 2nd Cut .....	4.30	4.60	4.80	6.10	8.10	11.00	15.30	20.10	26.80
Flat, Smooth Cut .....	4.70	4.90	5.30	6.60	8.70	12.10	16.70	22.30	29.20

### MILL FILES—SINGLE CUT—TWO SQUARE EDGES



Used principally for filing mill or circular saws, also planer knives and mowing machine knives; for lathe work, draw-filing and for finishing brass, bronze, etc. Tapered slightly in thickness and in width for about one-third of their length. Principally used in Bastard Cut, or in Second Cut for a finer finish, and Smooth Cut for a very fine finish. Genuine Nicholson, Black Diamond or Arcade Brands.

		LIST DOZEN							
Length, Inches.		4	6	8	10	12	14	16	
Mill, Bastard Cut .....	\$3.00	\$3.50	\$4.30	\$5.60	\$7.50	\$10.70	\$14.70		
Mill, 2nd Cut .....	3.50	4.00	4.90	6.40	8.60	12.20	16.80		
Mill, Smooth Cut .....	....	4.50	5.40	7.00	9.40	13.10	17.90		

### MILL FILES—1 ROUND EDGE



Single cut. For filing the gullet or space between the saw teeth. Genuine Nicholson, Black Diamond or Arcade Brands.

		LIST DOZEN				
Length, Inches.		6	8	10	12	14
Mill 1 R. E., Bastard..	\$3.90	\$4.80	\$6.30	\$8.40	\$12.00	
Mill 1 R. E., 2nd Cut..	4.50	5.50	7.20	9.70	....	

### MILL FILES—2 ROUND EDGES



Single cut. For filing the gullet or space between the saw teeth. Genuine Nicholson, Black Diamond or Arcade Brands.

		LIST DOZEN					
Length, Inches.		6	8	10	12		
Mill 2 R. E., Bastard....	\$4.40	\$5.40	\$7.00	\$ 9.40			
Mill 2 R. E., 2nd Cut....	5.00	6.10	8.00	10.80			

### HAND FILES—DOUBLE CUT



Double cut. Of rectangular section. (Proportions 4 to 1.) For finishing flat surfaces. Parallel in width and tapered in thickness. Cut on both sides and on one edge only, this permits filing into corners and for other work where a "safe" or uncut edge is required. Genuine Nicholson, Black Diamond or Arcade Brands.

		LIST DOZEN							
Length, Inches.		4	5	6	8	10	12	14	16
Hand, Bastard Cut .....	\$3.70	\$3.90	\$4.30	\$5.40	\$7.50	\$10.70	\$15.00	\$20.10	\$26.80
Hand, 2nd Cut .....	4.30	4.70	5.10	6.30	8.70	12.30	17.00	22.80	29.90
Hand, Smooth Cut .....	4.80	5.30	5.60	6.70	9.40	13.50	18.20	24.20	31.50

DISCOUNTS	GENUINE NICHOLSON		BLACK DIAMOND		ARCADE	
	Full Package	40-12½% OFF	Full Package	40-12½% OFF	50-10% OFF	50% OFF
	Broken Package	40% OFF		40% OFF		



# FILES

## GENUINE NICHOLSON

## BLACK DIAMOND

## ARCADE BRAND

**Note:** The following table gives the proportionate lengths and diameters of all standard round and square American Files:

American Flies:											
Diameter, inches.....	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Length, inches.....	3 & 4	5	6	7	8	9	10	12	14	16	18

### HALF ROUND FILES



Generally used by machinists, engineers, repair men, etc. The section being rounded on one side and flat on the other permits its use where any other type of file would be unsatisfactory. Genuine Nicholson, Black Diamond or Arcade Brands.

Length, Inches	4	6	8	10	12	14	16	18
Half Round, Bastard Cut.....	\$4.80	\$6.10	\$7.50	\$9.10	\$11.80	\$15.50	\$20.60	\$27.50
Half Round, 2nd Cut.....	5.60	6.70	8.30	10.10	13.00	17.00	22.50	.....
Half Round, Smooth Cut.....	6.10	7.10	8.90	10.70	13.90	18.30	24.20	.....

### ROUND FILES



12 inch size and larger are double cut in Bastard and Second Cut, all other sizes and cuts are single cut. For filing or enlarging circular openings or concave surfaces. Genuine Nicholson, Black Diamond or Arcade Brands.

Length, Inches	4	6	7	8	10	12	14	16
Round, Bastard Cut.....	\$3.00	\$3.50	\$3.90	\$4.30	\$5.60	\$7.50	\$10.70	\$14.70
Round, 2nd Cut.....	3.50	4.00	.....	4.90	6.40	8.60	12.20	16.80
Round, Smooth Cut.....	3.90	4.50	.....	5.40	7.00	9.40	13.10	17.90

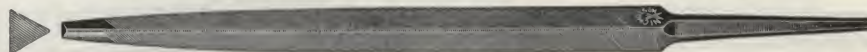
### SQUARE FILES



Double cut. For filing Slots, Keyseats, and general surface filing. Heavier in section than a flat file and has four filing surfaces. Genuine Nicholson, Black Diamond or Arcade Brands.

Length, Inches	4	5	6	7	8	10	12	14	16	18
Square, Bastard Cut.....	\$3.80	\$4.10	\$4.60	\$5.10	\$5.50	\$7.40	\$10.20	\$13.90	\$18.70	\$25.10
Square, 2nd Cut.....	4.60	4.80	5.10	5.80	6.30	8.50	11.50	16.10	21.20	28.20
Square, Smooth Cut.....	4.90	5.30	5.50	6.30	7.00	9.10	12.80	17.50	23.30	30.40

### TAPER HAND SAW FILES—SINGLE CUT



Taper (Regular)



Slim Taper



Extra Slim Taper

Double Extra Slim Taper

Triangular or Three Cornered—60 degree angles. For filing and sharpening handsaws, or any type of saw having 60-degree angle teeth. Edges or corners are "set" and cut, to file the gullet between the saw teeth. Select a file whose width, or flat side, is equal to a little more than twice the depth of the saw tooth. Genuine Nicholson, Black Diamond or Arcade Brands.

Length, Inches	4	4 1/2	5	5 1/2	6	7	8	10
Taper (Regular).....	\$2.20	\$2.40	\$2.60	\$3.00	\$3.40	\$4.30	\$5.40	\$8.10
Slim Taper.....	2.20	2.30	2.50	2.90	3.10	3.80	4.50	6.40
Extra Slim Taper.....	2.20	2.30	2.50	2.90	3.10	3.80	4.50	.....
Double Extra Slim Taper.....	2.20	2.30	2.50	2.90	3.10	3.80	4.50	.....

### BANDSAW BLUNT SLIM FILE



Single cut. Triangular. For filing and sharpening bandsaws, which are less liable to break if the gullets between the teeth are well rounded.

Length, Inches	6	8
Bandsaw Blunt Slim.....	\$3.90	\$5.30

### CANT FILES



Cant Files are triangular, tapering to the point in both width and thickness. Double cut on three sides and single cut on the two sharp edges.

Length, Inches	6	8	10
Cant Saw.....	\$5.40	\$6.40	\$8.70

### DISCOUNTS

Brand  
Full Package  
Broken Package

**GENUINE NICHOLSON**  
40-12 1/2% OFF  
40% OFF

**BLACK DIAMOND**  
40-12 1/2% OFF  
40% OFF

**ARCADE**  
50-10% OFF  
50% OFF



# FILES & RASPS

**GENUINE  
NICHOLSON**

**BLACK  
DIAMOND**

**ARCADE  
BRAND**

## CROSS CUT SAW FILE



Single cut. Cut like mill bastard. Used for filing or sharpening crosscut saws. Genuine Nicholson, Black Diamond or Arcade Brands.

### LIST DOZEN

Length, Inches	6	8	10
Cross Cut .....	\$6.10	\$7.50	\$9.10

## WARDING FILES



Double cut. Are of rectangular section. For locksmiths in repairing or filing the ward notches in keys. For narrow spaces where other files would be too thick. Genuine Nicholson, Black Diamond and Arcade Brands.

### LIST DOZEN

Length, Inches	4	5	6
Warding, Bastard Cut.....	\$4.00	\$4.50	\$4.75

## KNIFE FILES

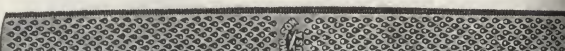


Double cut. Are of the general knife blade section. Used principally by tool and die makers on work having acute angles. Genuine Nicholson, Black Diamond and Arcade Brands.

### LIST DOZEN

Length, Inches	4	5	6	8
Knife, Bastard Cut....	\$5.40	\$6.10	\$6.90	\$8.50

## ARCADE PLAIN HORSE RASPS



Arcade Brand only. For horseshoers, etc. Rectangular in section. One side has rasp teeth and the other side file teeth. Double ended.

### LIST DOZEN

Length, Inches	14	16
Plain Horse Rasp.....	\$17.80	\$24.40

## ARCADE CABINET FILES



Arcade Brand only. For use by cabinet makers and woodworkers. Made in Half Round section, but with the circle of the back of larger radius than a regular Half Round File.

### LIST DOZEN

Length, Inches	10	12	14
Cabinet File .....	\$13.70	\$18.70	\$24.80

## ARCADE CABINET RASP



Arcade Brand only. For use by cabinet makers and woodworkers, etc. Made in Half Round section, but with the circle of the back of larger radius than a regular Half Round Rasp.

### LIST DOZEN

Length, Inches	10	12	14
Cabinet Rasp, 2nd Cut....	\$17.50	\$22.80	\$29.60

## ARCADE HALF ROUND WOOD RASPS

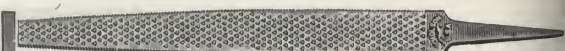


Arcade Brand only. Are used by woodworkers, wheelwrights, plumbers, etc.

### LIST DOZEN

Length, Inches	10	12	14	16
Bastard Cut .....	\$13.70	\$18.70	\$24.80	\$32.90

## ARCADE FLAT WOOD RASPS



Arcade Brand only. Are used by woodworkers, wheelwrights, plumbers, etc.

### LIST DOZEN

Length, Inches	10	12	14	16
Flat Wood Rasp, Bastard..	\$12.80	\$17.50	\$23.20	\$30.80

## DISCOUNTS

Brand  
Full Package  
Broken Package

**GENUINE NICHOLSON**  
40-12½% OFF  
40% OFF

**BLACK DIAMOND**  
40-12½% OFF  
40% OFF

**ARCADE**  
50-10% OFF  
50% OFF

## NICHOLSON SWISS PATTERN EXTRA 'XF' FINE BENCH FILING MACHINE FILE ASSORTMENT



Especially designed for use on machines for filing dies, patterns, etc. Made with round shanks ¼ inch or ½ inch in diameter by 3¼ inches overall. They are cut so that the file will cut on the downward stroke. Twelve shapes as follows: Round, Half Round, Pillar, Oval, Knife, Square, Three Square, Crochet, Equaling, Pippin, Lozenge, Cant.



¼ inch Shank, Cut 00.....Set of 12, List, \$4.50 | ½ inch Shank, Cut 00.....Set of 12, List, \$5.00  
**DISCOUNT.....20% OFF**

## NICHOLSON SWISS PATTERN EXTRA 'XF' FINE PARALLEL MACHINE FILE ASSORTMENT

Made for use in filing machines. 5 inches long exclusive of the tapered tang. Made to file on the upward stroke. Twelve shapes (similar to Bench Filing Machine File Shapes, illustrated above) as follows:



Round, Half Round, Pillar, Oval, Knife, Square, Three Square, Crochet, Equaling, Pippin, Lozenge, Cant.

Cut 00, 5 inch.....Set of 12, List, \$6.40

**DISCOUNT.....20% OFF**



# GENUINE NICHOLSON EXTRA 'XF' FINE SWISS PATTERN FILES

Nicholson 'XF' Files are manufactured in accordance with Swiss designs or patterns. For fine work and particular purposes such as required by toolmakers, die sinkers, pattern makers, etc. Up to size 8 inch are packed 12 in a box. 10 inch and larger are packed 6 in a box.

## ASSORTMENT

Fig. 4000  
1 Set of 12, 4 inch.  
Assorted Swiss Pattern  
Files in a Roll.

★ NET SET, \$3.00

Cut 00 corresponds somewhat with the Bastard Cut of the American Pattern. Cut 0 corresponds somewhat with the 2nd Cut of the American Pattern. Cut 2 corresponds somewhat with the Smooth Cut of the American Pattern. Prices on application for any other style, size, or cut, not listed.

## 'XF' HAND FILE



Equaling or parallel in width and tapering in thickness. Double cut on two flat sides and single cut on one edge.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Size.....	$1\frac{1}{2} \times \frac{1}{4}$	$2\frac{3}{4} \times \frac{1}{2}$	$3\frac{1}{2} \times \frac{3}{8}$	$1\frac{1}{2} \times \frac{1}{4}$
Hand, Cut 00 or 0.....	3.70	4.90	7.00	9.30
Hand, Cut 2.....	3.90	5.40	7.70	10.40

## 'XF' PILLAR NARROW FILES



Narrower than Pillar Files. Double cut on the two flat sides only, the edges being left safe.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Size.....	$1\frac{1}{4} \times \frac{1}{8}$	$2\frac{3}{4} \times \frac{1}{2}$	$3\frac{1}{2} \times \frac{7}{16}$	$3\frac{1}{4} \times \frac{1}{2}$
Pillar Narrow, Cut 00 or 0.....	3.00	3.40	4.80	6.60
Pillar Narrow, Cut 2.....	3.10	3.70	5.20	7.00

## 'XF' EQUALING FILES



Are equaling or parallel in width and thickness throughout their length. Double cut on the two flat sides and single cut on both edges.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Size.....	$1\frac{1}{2} \times \frac{1}{4}$	$1\frac{1}{2} \times \frac{1}{4}$
Equaling, Cut 00 or 0.....	3.60	4.40
Equaling, Cut 2.....	4.00	4.90

## 'XF' WARDING FILE



Rectangular in section with thickness approximately one-eighth of their width, tapering to a point in width and tapering slightly in thickness. Double cut on the two flat sides and single cut on both edges.

### LIST DOZEN

Length, Inches.....	3	4	6
Approximate Size.....	$2\frac{3}{4} \times \frac{3}{16}$	$1\frac{1}{2} \times \frac{3}{16}$	$1\frac{1}{2} \times \frac{1}{4}$
Warding, Cut 00 or 0.....	2.80	3.20	4.60
Warding, Cut 2.....	3.00	3.60	5.30

## 'XF' KNIFE FILES



Knife shaped, the included angle of the sharp edge being 10°, tapering in width and thickness to the point. Double cut on flat sides and single cut on edges.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Width.....	$2\frac{3}{4}$	$4\frac{1}{4}$
Knife, Cut 00 or 0.....	4.40	6.00
Knife, Cut 2.....	5.00	7.00

## 'XF' PILLAR FILES

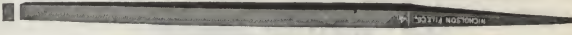


About two-thirds as wide as Hand Files. Double cut on the two flat sides only, the edges being left safe.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Size.....	$1\frac{1}{2} \times \frac{1}{4}$	$3\frac{1}{4} \times \frac{1}{2}$	$3\frac{3}{4} \times \frac{1}{4}$	$4\frac{1}{4} \times \frac{1}{4}$
Pillar, Cut 00 or 0.....	3.00	3.40	4.80	6.60
Pillar, Cut 2.....	3.10	3.70	5.20	7.00

## 'XF' PILLAR EXTRA NARROW FILES



Extra narrow. Cut on two flat sides only, the edges being left safe.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Size.....	$1\frac{1}{4} \times \frac{1}{8}$	$1\frac{1}{4} \times \frac{1}{2}$	$1\frac{3}{4} \times \frac{1}{2}$	$2\frac{3}{4} \times \frac{1}{4}$
Pillar, Ex. Nar., 00 or 0.....	3.00	3.40	4.80	6.60
Pillar, Ex. Nar., Cut 2.....	3.10	3.70	5.20	7.00

## 'XF' SQUARE FILES



Square in section, tapering on all four sides to a fine point. Double cut on all four sides.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Width.....	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{1}{4}$
Square, Cut 00 or 0.....	3.80	5.00	6.00	7.40
Square, Cut 2.....	4.00	5.40	6.80	9.00

## 'XF' CROCHET FILES

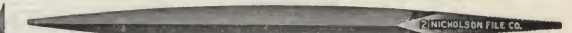


Rectangular in section, tapering to a point in both width and thickness and made with both edges well rounded. Double cut on the flat sides and on both edges.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Size.....	$2\frac{3}{4} \times \frac{3}{16}$	$1\frac{1}{2} \times \frac{1}{8}$
Crochet, Cut 00 or 0.....	5.00	6.80
Crochet, Cut 2.....	5.40	7.40

## 'XF' BARRETTE FILES



Flat in section with one side beveled at both edges, the included angle being 33°. Double cut on the wide flat side only, the back and the beveled edges being left safe.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Width.....	$\frac{1}{2}$	$2\frac{1}{2}$
Barrette, Cut 00 or 0.....	5.50	6.60
Barrette, Cut 2.....	5.60	7.00

## DISCOUNTS

1 Only.....	LIST NET
2 to 11, 4 or 6 Inch; 2 to 5, 8 or 10 Inch.....	10% OFF
Full Packages: 12—4 or 6 Inch; 6—8 or 10 Inch.....	20% OFF



# GENUINE NICHOLSON EXTRA 'XF' FINE SWISS PATTERN FILES

## 'XF' THREE SQUARE FILES

Triangular in section with angles of 60°, tapering to the point, corners left sharp. Double cut on the three sides and single cut on the edges.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Width.....	$\frac{1}{4}$	$\frac{3}{4}$
Three Square, Cut 00 or 0.....	3.90	4.80
Three Square, Cut 1 or 2.....	4.20	5.20

## 'XF' HALF ROUND FILES

Half round in section, tapering in width and thickness to the point. Double cut on both flat and half round sides.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Size.....	$1\frac{1}{2} \times \frac{1}{8}$	$1\frac{7}{8} \times \frac{3}{16}$	$2\frac{1}{2} \times \frac{1}{4}$	$2\frac{9}{16} \times \frac{1}{4}$
Half Round, Cut 00 or 0.....	5.10	6.80	10.00	13.30
Half Round, Cut 1 or 2.....	6.00	8.00	11.30	14.60

## 'XF' ROUND FILES

Circular section, tapering throughout their length to a fine point. Double cut.

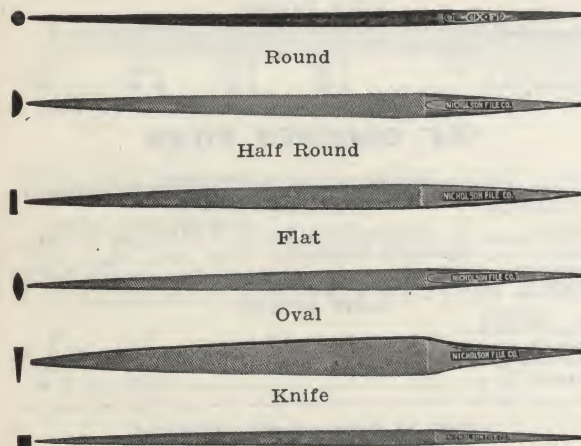
### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Width.....	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$
Round, Cut 00 or 0.....	2.80	4.00	5.80	7.80
Round, Cut 1 or 2.....	3.00	4.40	6.20	8.60

## DISCOUNT

1 Only.....	LIST NET
2 to 11, 4 or 6 Inch; 2 to 5, 8 or 10 Inch.....	10% OFF
Full Packages: 12—4 or 6 Inch; 6—8 or 10 Inch.....	20% OFF

## NICHOLSON 'XF' SWISS PATTERN DIE SINKER FILE ASSORTMENT



Square

Assorted set of twelve  $3\frac{1}{2}$  inch Die Sinker Files. For dressing and finishing dies of all kinds.  
Cut 0,  $3\frac{1}{2}$  Inch.....Set of 12, List, \$4.40 | Cut 2,  $3\frac{1}{2}$  Inch.....Set of 12, List, \$4.40  
**DISCOUNT.....20% OFF**

## 'XF' SWISS PATTERN ROUND HANDLE NEEDLE FILE ASSORTMENT

Assorted set of twelve Round Handle Needle Files. Used principally for die makers, fine tool makers, etc. Twelve shapes, one each as follows: Round, Half Round, Flat, Oval (Crossing), Knife, Square, Three Square, Equaling, Barrette, Joint, Slitting, Marking. Illustrations show type of handle.

4 INCH—CUTS 0, 2 or 4.....LIST, \$2.50	5-1/2 INCH—CUTS 0, 2 or 4.....LIST, \$3.20	6-1/4 INCH—CUTS 0, 2 or 4.....LIST, \$3.50
<b>DISCOUNT.....20% OFF</b>		

## 'XF' METAL SAW FILES

Triangular in section with angles of 60 degrees, parallel throughout their length, and with the corners left sharp. Double cut on three sides and single cut on the edges.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Width, Inches.....	$\frac{1}{4}$	$\frac{11}{32}$
Cut 0, List Dozen.....	\$3.90	\$4.80
Cut 2, List Dozen.....	\$4.20	\$5.20
Cut 4, List Dozen.....	\$5.20	\$5.90

## 'XF' CROSSING FILES

Double circular section, one side having the same radius as the Half Round File and the other side having a flatter curve or larger radius, tapering to the point in both width and thickness. Double cut on both sides.

### LIST DOZEN

Length, Inches.....	4	6	8	10
Approximate Size.....	$1\frac{1}{2} \times \frac{1}{8}$	$\frac{5}{8} \times \frac{3}{16}$	$2\frac{1}{2} \times \frac{1}{4}$	$2\frac{9}{16} \times \frac{1}{4}$
Crossing, Cut 00 or 0.....	5.60	7.60	11.30	15.00
Crossing, Cut 2.....	6.20	8.60	12.40	16.40

## 'XF' PIPPIN FILES

Curved in section with rounded back tapering in section to a sharp edge. Tapering in width and thickness to the point. Double cut.

### LIST DOZEN

Length, Inches.....	4	6
Approximate Size.....	$\frac{1}{2} \times \frac{1}{8}$	$\frac{3}{4} \times \frac{1}{4}$
Pippin, Cut 0.....	5.40	7.40
Pippin, Cut 2.....	5.80	8.00

Three Square

Flat, 2 Round Edges

Flat, 1 Safe Edge

Oval, 1 Sharp Edge

Lozenge

Auriform



## HACK SAW FRAMES—Adjustable Backs



Fig. No. 1046C

★ Net Each, \$0.67



Fig. No. 1048C

★ Net Each, \$0.67

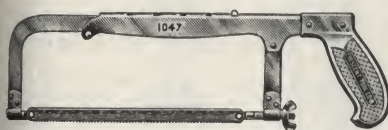


Fig. No. 1047C

★ Net Each, \$0.80



Fig. No. 1049C

★ Net Each, \$0.80

Crescent. Adjustable for blades 8 to 12 inches, except 1045C, 8 to 10 inches. Pistol grip handles. Nickel plated. With 1 blade.

Mfrs. No.	Kind	Steel Frame Inches	Handle	Depth of Cut, Inches	Weight Ounces	★ NET EACH
1046C	Strong	.164x9 $\frac{3}{16}$	Steel	2 $\frac{1}{2}$	19	\$0.67
1047C	Heavy	$\frac{3}{16}$ x11 $\frac{1}{16}$	Steel	3 $\frac{1}{4}$	23	\$ .80
1048C	Strong	.164x9 $\frac{3}{16}$	Composition	2 $\frac{1}{2}$	19	\$ .67
1049C	Heavy	$\frac{3}{16}$ x11 $\frac{1}{16}$	Composition	3 $\frac{1}{4}$	23	\$ .80
1045C	Extra Hy.	$\frac{3}{16}$ x $\frac{7}{8}$	Heavy Steel	3 $\frac{1}{4}$	35	\$1.10



Fig. No. 1490A. Adjustable steel frame, light pattern, nickel plated, for 8, 9, 10 or 12 in. blades, which may be faced 4 ways. 2  $\frac{1}{2}$  in. cut. ★ NET EACH, \$0.35

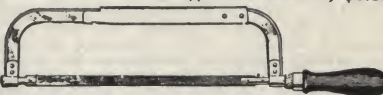


Fig. 144S. Adjustable frame, nickel plated, for 8, 9, 10, 11 or 12 in. blades, which may be faced 4 ways. 2  $\frac{1}{2}$  in. cut. ★ NET EACH, \$0.90



Fig. 4187. Solid back. Cadmium plated heavy wire frame. 9  $\frac{1}{2}$  inches overall. With one 6 by  $\frac{1}{4}$  inch, .014 gauge, 32 tooth flexible blade. 1 to 11.....★ NET EACH, \$0.25  
12 or more.....★ NET DOZEN, \$2.00  
Extra blades ..★ NET DOZEN, \$0.45

### WHITNEY METAL LEVER PUNCH



Fig. 2733. Mfrs. 5 Jr.

#### HAND PUNCH

Capacity  $\frac{1}{4}$  inch hole through 16 gauge metal. Punch in center of 3 inches. Length overall 8  $\frac{1}{4}$  inches. Height of gap  $\frac{1}{4}$  inch. Weight, 2  $\frac{1}{2}$  pounds. With three punches and three dies.

SPECIFY SIZES OF THREE PUNCHES AND THREE DIES WANTED;  $\frac{1}{16}$  to  $\frac{1}{64}$  inch by 64ths of an inch.  $\frac{1}{8}$ ,  $\frac{3}{16}$  and  $\frac{1}{4}$  inch punches and dies furnished unless otherwise specified.

LOOSE ...★ NET EACH, \$6.45

In Metal Box.....★ NET \$6.75

Extra Punches...★ NET EACH, \$0.25

Extra Dies ....★ NET EACH, \$0.25

### WHITNEY METAL BALL BEARING PUNCH



Fig. 2734. Mfrs. 10

Capacity  $\frac{3}{8}$  inch hole through  $\frac{1}{4}$  inch iron. Weight, 8  $\frac{1}{2}$  pounds. Depth of throat, 1  $\frac{1}{2}$  inches. Height of throat,  $\frac{7}{8}$  inch. Length overall 18 inches. Friction is greatly eliminated with the ball bearings. With one punch and one die. SPECIFY SIZE OF PUNCH AND DIE WANTED;  $\frac{1}{8}$  to  $\frac{1}{16}$  inch by 32nds inches.

★ NET EACH, \$17.50

Steel Base .....★ NET EXTRA, \$1.75

Extra Punches...★ NET EACH, \$0.30

Extra Dies .....★ NET EACH, \$0.30

FOR DRIVING RIVETS. Riveting punch and Die ..★ NET SET, \$1.40

For See Pages

Punches ..... 24 and 26

Electric Drills ..... 296 and 299

Hand Drills ..... 362 and 363

Bench and Post Drills ..... 364

### W. A. WHITNEY LEVER PUNCHES

Powerful. Simple construction. Fine balance. Built for the hardest kind of service according to their rated capacity. Main parts of the tools are drop-forgings of alloy steel with wearing parts heat treated. Punches and dies are A-1 tool steel, heat-treated and tempered.



Fig. 4328. Mfrs. 4B

#### HAND PUNCH

Capacity is  $\frac{1}{4}$  inch through 16 gauge sheet metal. 8  $\frac{1}{2}$  inches long. Weighs 3 pounds. Depth of throat is 2 inches. Perfect balance. Natural grip. With three punches, three dies and die adjusting key. SPECIFY SIZES OF THREE PUNCHES AND THREE DIES WANTED;  $\frac{1}{16}$  to  $\frac{3}{32}$  inch by 64ths of an inch.  $\frac{1}{8}$ ,  $\frac{3}{16}$  and  $\frac{1}{2}$  inch punches and dies furnished unless otherwise specified.

★ NET EACH, \$6.00

Extra Punches...★ NET EACH, \$0.25

Extra Dies .....★ NET EACH, \$0.25



Fig. 4329. Mfrs. 8

#### HAND PUNCH

Capacity is  $\frac{1}{4}$  inch hole through  $\frac{1}{4}$  inch iron. Length of punch 18  $\frac{1}{2}$  inches. Weight 7  $\frac{1}{2}$  pounds. Depth of throat, 2 inches. With three punches, three dies and die adjusting key. SPECIFY SIZES OF THREE PUNCHES AND THREE DIES WANTED;  $\frac{1}{16}$  to  $\frac{1}{64}$  inch by 64ths of an inch.  $\frac{3}{16}$ ,  $\frac{1}{32}$  and  $\frac{1}{4}$  inch punches and dies furnished unless otherwise specified. Side gauge marked in fractional inches. Upper lever does not throw back to right angles. Without Vise

★ NET EACH, \$10.00

Extra Punches...★ NET EACH, \$0.30

Extra Dies .....★ NET EACH, \$0.30

PUNCH VISE. Malleable iron. Bolts to bench or plank. Holds Nos. 2, 4B or 8 punches.

★ NET EACH, \$3.00



Fig. 4330. Mfrs. 2

#### HAND PUNCH

Capacity is  $\frac{5}{16}$  inch hole through  $\frac{1}{4}$  inch iron. 23 inches long. Weighs 13 pounds. Depth of throat is 1  $\frac{1}{16}$  inches. With one punch and one die of any size  $\frac{3}{32}$  to  $\frac{1}{2}$  inch by 64ths of an inch. SPECIFY SIZE OF PUNCH AND DIE WANTED.  $\frac{1}{4}$  inch punch and die furnished unless otherwise specified.

★ NET EACH, \$15.00

Extra Punches...★ NET EACH, \$0.35

Extra Dies .....★ NET EACH, \$0.45

#### BENCH PUNCH—Very Powerful

Punches CHANNEL IRON, 2  $\frac{1}{2}$  inch flange by  $\frac{1}{4}$  inch web. Punches ANGLE IRON, 2  $\frac{1}{2}$ x2  $\frac{1}{2}$ x  $\frac{1}{4}$  inch. Punches IRON:  $\frac{1}{4}$  inch— $\frac{3}{4}$  inch hole;  $\frac{3}{16}$  inch—1 inch hole;  $\frac{1}{8}$  inch—2 inch hole. Chrome nickel steel jaw. With one punch and die. SPECIFY SIZE WANTED up to  $\frac{7}{8}$  inch round: With one bolster plate for holding 1  $\frac{1}{16}$  inch diameter dies. Depth of throat, 5 inches. Weight 82 pounds.

★ NET EACH

\$50.00

#### EXTRA PUNCHES

Up to  $\frac{3}{4}$  inch...★ NET EACH, \$0.50

$\frac{1}{16}$  to 2 inch...★ NET EACH, \$1.25

#### EXTRA DIES

Up to  $\frac{3}{4}$  inch...★ NET EACH, \$0.50

$\frac{1}{16}$  to 1  $\frac{1}{2}$  inch...★ NET EACH, \$0.90

$\frac{1}{16}$  to 2 inch...★ NET EACH, \$1.50

#### EXTRA BOLSTER PLATES

Self centering. Easily changed. Size given is outside diameter of die.

$\frac{7}{8}$  INCH. For angles and channels.

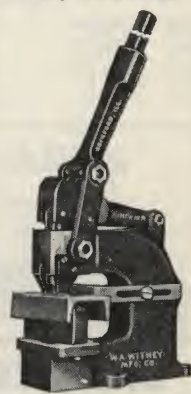
For all holes up to  $\frac{5}{8}$  inch.

1  $\frac{3}{4}$  INCH. Holes 1  $\frac{1}{16}$ — $\frac{7}{8}$  inch.

1  $\frac{15}{16}$  INCH. Holes 1  $\frac{1}{16}$ —1  $\frac{1}{2}$  inch.

2  $\frac{7}{16}$  INCH. Holes 1  $\frac{1}{16}$ —2 inch.

★ NET EACH, \$4.50

Fig. 4331  
Mfrs. 91



# Barnes RED ARROW High Speed Steel Blades



**Fig. 3415 Red Arrow POWER BLADES**

Red Arrow Blades give LONG LIFE, ARE FAST CUTTING, COST LESS in the long run, and ordinarily give ten to fifteen times the service of regular low tungsten blades. They possess flexibility and toughness which reduces breakage to a minimum. Six or four tooth blades are recommended for heavy duty machines for cutting large sections of soft steel. Ten tooth blades have specially designed shallow teeth which are recommended for general purposes and will cut thin materials, 18 gauge or heavier without stripping the teeth. Use dry on thin material and with small amount of lubricant on heavier material. Red Arrow Blades cut better when warm.

SPECIFY length, width and thickness as well as the number of teeth to the inch.

Length, Inches	Width, Inches	Thickness, In. Gauge	Teeth Per Inch	List, Dozen
12	1	.049-18	14	\$14.40
12	1	.065-16	6-10	14.40
14	1	.049-18	14	16.80
14	1	.065-16	6-10	16.80
14	1 1/4	.065-16	4-6-10	21.00
17	1	.049-18	14	20.40
17	1	.065-16	6-10	20.40
17	1 1/4	.065-16	4-6-10	25.50
18	1	.065-16	10	21.60
18	1 1/4	.065-16	4-6-10	27.00
18	1 1/2	.072-..	4-6	35.64
21	1 1/2	.065-16	4-6-10	37.80
24	2	.072-..	4-6	55.44
24	1 1/2	.065-16	6-10	43.20
24	2	.072-..	4-6	63.36

**DISCOUNT** {Broken Boxes, 1 to 11 .....30% OFF      Gross Lots .....40-5% OFF  
 {1 to 11 Dozen (1 Dozen in Box) 40% OFF      5 Gross or More .....40-10% OFF

**Fig. 3639 Red Arrow HAND BLADES**

Made of the same materials as the power high speed steel blades and give the same relative increased service.

SPECIFY length and thickness as well as the number of teeth to the inch.

Length, Inches	Width, Inches	Thickness, In. Gauge	Teeth Per Inch	List, Dozen
10	3/8	.025 23	18-24-32	\$3.36
12	3/8	.025 23	18-24-32	4.08

**DISCOUNT** {Broken Boxes, 1 to 11 .....25% OFF      Gross Lots .....30-5% OFF  
 {1 to 11 Dozen (3 Dozen in Box) 30% OFF      5 Gross or More .....40% OFF

## BARNES 'SERVICE' SPECIAL ALLOY HACK SAW BLADES



A Blade made of a new type alloy steel. Recommended FOR ALL TYPES OF CUTTING on Power Machines and on harder jobs of hand sawing. Quality & Uniformity Guaranteed.

### HEAVY DUTY POWER BLADES

Fig. 5322. 1 Dozen in Box

Lgth. Ins.	Width Inches	Thickness Inches	Gauge	Teeth To The Inch	LIST DOZEN
12	1	.049	18	14	\$10.08
12	1	.065	16	6-10	\$10.08
14	1	.049	18	14	\$11.76
14	1	.065	16	6-10	\$11.76
14	1-1/4	.065	16	4-6-10	\$14.70
17	1	.049	18	14	\$14.28
17	1	.065	16	6-10	\$14.28
17	1-1/4	.065	16	4-6-10	\$17.85
18	1	.065	16	10	\$15.12
18	1-1/4	.065	16	4-6-10	\$18.90
18	1-1/2	.072	14	4-6	\$24.84
21	1-1/2	.065	16	4-6-10	\$26.46
21	2	.072	14	4-6	\$38.64
24	1-1/2	.065	16	6-10	\$30.24
24	2	.072	14	4-6	\$44.16

### HAND BLADES

Fig. 5321. 3 Dozen in Box

Lgth. Ins.	Width Inches	Thickness Inches	Gauge	Teeth To The Inch	LIST DOZEN
10	1/2	.025	23	18-24-32	\$3.35
12	1/2	.025	23	14-18-24-32	\$4.00

SPECIFY the number of teeth to the inch and the length.

### DISCOUNTS—Hand and Power Blades

Broken Boxes, 1 to 11 .....25% OFF  
 1 to 11 Dozen .....30% OFF  
 Lots to 1 to 4 Gross .....30-10% OFF  
 Lots of 5 Gross or more .....40-5% OFF

## BARNES '600' CARBON HAND HACK SAW BLADES



Fig. 600

The '600' is the blade that will solve your cutting problems on pipe, tubing, thin section material, etc. Special heat treatment. 'KRIMP-SET' teeth will not 'shell out.'

SPECIFY the number of teeth to the inch and the length.

Length Inches	Width Inches	Thickness Inch	Gauge	No. Teeth To Inch	LIST GROSS
10	1/2	.025	23	18-24	\$10.00
12	1/2	.025	23	18-24	\$12.00

### DISCOUNTS

1 to 11 Each .....LIST NET  
 1 to 6 Dozen .....25% OFF  
 Full Boxes (6 Dozen) .....30% OFF  
 Gross Lots .....30-10% OFF  
 5 Gross or More .....40-5% OFF



# LA SALLE CARBON HACK SAW BLADES

LA SALLE W.D. ALLEN  
MFG. COMPANY.

Made from finest quality steel by the most improved methods. Being tempered by a special process, La Salle Blades have greater toughness than any all hard hack saws on the market. We especially recommend the "La Salle" Hack Saw Blades.

**SPECIFY** the number of teeth to the inch and whether all hard, or flexible blades are wanted when ordering.

**Note:** ALL HARD blades are recommended for shop use, at the bench, by mechanics. FLEXIBLE blades are more suited to general use.

We make the following recommendations regarding the number of teeth for different kinds of work.  
For General Work.....Use 18 teeth per inch  
For Brass, Drill Rod, & Pipe.....Use 24 teeth per inch  
For Thin Tubing.....Use 32 teeth per inch

Fig. 1717H—Hard Hand Blades  
Fig. 1717F—Flexible Hand Blades

Length Inches	Width, Inches	Thickness, Inches	Gauge	No. of Teeth To Inch	List Gross
8	$\frac{1}{8}$	.025	23	18-24-32	\$ 8.00
10	$\frac{1}{2}$	.025	23	18-24-32	10.00
12	$\frac{1}{2}$	.025	23	18-24-32	12.00

**DISCOUNT** { Broken Boxes, 1 to 11 LIST NET  
1 to 5 Dozen.....25% OFF  
Full Boxes (6 Dozen).....30% OFF  
Gross Lots.....30-10% OFF  
5 Gross or more.....40-5% OFF

## BARNES CARBON HACK SAW BLADES

### HAND BLADES All Hard or Flexible

Fig. 3413H—ALL HARD HAND BLADES. Recommended for shop use at the bench by mechanics.

Fig. 3413F—FLEXIBLE HAND BLADES. Recommended for general use.

Milled teeth are accurately set for straight cutting.

**SPECIFY** the number of teeth to the inch and whether all hard, or flexible blades are wanted when ordering.

Length Inches	Width, Inches	Thickness, Inches	Gauge	No. of Teeth To Inch	List Gross
8	$\frac{1}{8}$	.025	23	18-24-32	\$ 8.00
10	$\frac{1}{2}$	.025	23	18-24-32	10.00
12	$\frac{1}{2}$	.025	23	18-24-32	12.00

For General Work.....Use 18 teeth per inch  
For Brass, Drill Rod, & Pipe.....Use 24 teeth per inch  
For Thin Tubing.....Use 32 teeth per inch

**DISCOUNT** { 1 to 11 .....LIST NET  
1 to 6 Dozen .....25% OFF  
Full Boxes (6 Dozen).....30% OFF  
Gross Lots .....30-10% OFF  
5 Gross or more .....40-5% OFF

### POWER HACK SAW BLADES

Fig. No. 3414—Power Blades

**SPECIFY** length, width and thickness as well as the number of teeth to the inch.

Length Inches	Width, Inches	Thickness, Inch	Gauge	No. In Box	No. of Teeth To Inch	LIST GROSS
12	$\frac{5}{8}$	.032—21	72	14-18		\$16.20
12	$\frac{3}{4}$	.032—21	72	14-18		\$19.44
12	$\frac{3}{4}$	.049—18	48	14-10		\$24.48
12	1	.049—18	48	14-10		\$32.64
14	$\frac{3}{4}$	.049—18	48	14-10		\$28.56
14	1	.049—18	48	14-10		\$38.08
14	1-1/4	.065—16	36	10		\$58.80
17	1	.049—18	48	14-10		\$46.24

**DISCOUNT** { 1 to 11 .....25% OFF  
1 to 11 Dozen .....30% OFF  
Gross Lots .....30-10% OFF  
5 Gross or more .....40-5% OFF

## SPECIAL UNBREAKABLE HACK SAW BLADES

A New, Double Heat Treated Blade For All Cutting That Is Superior To Flexible Or All Hard Blades. WILL NOT BREAK In Use.

BARNES SPECIAL  
UNBREAKABLE

Fig. 4327. Manufactured by Barnes

### TUNGSTEN STEEL

A time saving and a money saving blade. It has a longer life than the regular flexible blade because of the uniform hardness. It is superior to the all hard blade because THEY DO NOT BREAK. Tungsten steel. Milled teeth. Hardened throughout giving a uniform temper with a second special heat treatment making them UNBREAKABLE. Blade is flexible, yet stiff which prevents buckling and insures accurate and straight cutting. Be sure to use the following recommendation as to the proper number of teeth.

**SPECIFY** number of teeth to the inch and length of blade.

14 Teeth. For aluminum, soft steel, and thick sections of soft material.

18 Teeth. For general machine shop, and tool room work.

24 Teeth. For Plant maintenance, electricians, plumbers, garages, drill rod, brass, pipe, conduit, etc.

32 Teeth. For BX, thin tubing and sheet metal.

Length Inches	Width Inches	Thickness— Gauge Inch	Teeth To The Inch	LIST GROSS
8	$\frac{7}{16}$	23 .025	18-24-32	\$12.00
10	$\frac{1}{2}$	23 .025	14-18-24-32	15.00
12	$\frac{1}{2}$	23 .025	14-18-24-32	18.00
12	$\frac{9}{16}$	23 .025	14-18-24	24.00

**HAND SIZES ONLY** { 1 to 11 .....25% OFF  
1 to 11 Dozen .....30% OFF  
1 to 4 Gross .....30-10% OFF  
5 Gross or More .....40-5% OFF



## MARVEL DRAW CUT HACK SAWS

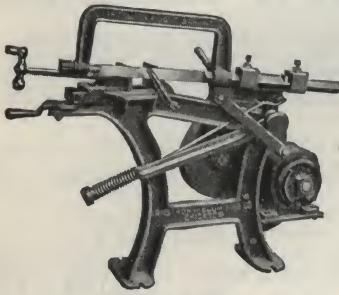


Fig. 5323

**SIZE 1 BELT DRIVEN.** Capacity, 4x4 inches. Length of blade, 12 inches. Size of pulley, 18x2-1/4 inches. Revolutions, 60 to 90 per minute. Takes 2-inch belt. With solid quick action vise. Net weight, 115 pounds.

★ **NET EACH, \$46.00**

**SIZE 1 WITH MOTOR.** Equipped with 1/4 horsepower motor, 110 Volt 1 phase A.C., 60 or 50 cycles. Capacity, 4x4 inches. Length of blade, 12 inches. Speed, 80 strokes per minute. With solid quick action vise. Net weight, 200 pounds.

★ **NET EACH, \$90.00**

**FEED.** Feed pressure is applied to the saw blade on the draw cut only, pressure being released on the return stroke, saving wearing and rubbing of the teeth on the return stroke. The feed is regulated by hand nut. Feed lever raises or lowers saw frame.

**RIGID SAW FRAME.** Slide is a square finished steel bar set on the quarter, edge up, and slides in V type bearings with loose caps that can be adjusted for wear.

**AUTOMATIC STOP.** Start and stop lever is at front of machine. The machine automatically stops when a cut is completed.

**DEPENDABLE.** The action is the simplest possible, with few moving parts. The machines are long lived, too simple to be misunderstood, and will stand severe service.

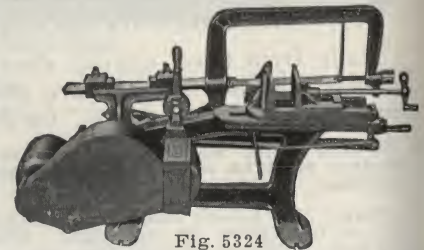


Fig. 5324

**SIZE 2 BELT DRIVEN.** Capacity 6x6 inches on 6-3/4 inch stroke and 8x8 inches on 4 inch stroke. Takes any length blade from 12 to 17 inches. Revolutions, 50 to 70 each minute. Size of pulley, 20x2-3/4 inches. Takes 2-1/2 inch belt. Quick action swivel vise. Net weight, 270 pounds.

★ **NET EACH, \$79.00**

**SIZE 2 WITH MOTOR.** Equipped with 1/2 horsepower electric motor for 110 Volt alternating current; single phase; 60 or 50 cycles. Capacity 6x6 inches on 6-3/4 inch stroke, 8x8 inches on 4 inch stroke. Takes any length blade from 12 to 17 inches. Speed, 65 strokes each minute. With quick action swivel vise. Net weight, 350 pounds.

★ **NET EACH, \$185.00**

### BAND SAWS FOR WOOD

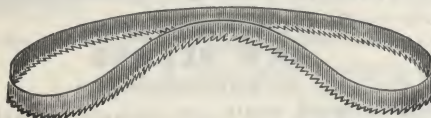


Fig. No. 1567. For Wood. Filed and set.

Width Inches	Standard Gauge	Point Per Inch	★ NET FOOT	Extra for Brazing
1/4	26	6	\$0.09 1/4	\$0.35
1/4	22	5	\$0.10	\$0.35
3/8	21	5	\$0.10 1/2	\$0.35
1/2	21	4	\$0.11 1/4	\$0.45
3/4	21	4	\$0.12 1/2	\$0.45
1	20	3	\$0.15 1/2	\$0.50
1 1/8	19 or 20	1 1/2" or 5/8"	\$0.16 3/4	\$0.70
1 1/4	19 or 20	1 1/2" or 5/8"	\$0.18 1/4	\$0.70
1 1/2	19 or 20	1 1/2" or 5/8"	\$0.20 1/2	\$0.80
1 3/4	19 or 20	1" or 1 1/4"	\$0.22 1/2	\$0.80
2	19 or 20	1" or 1 1/4"	\$0.26 1/2	\$0.80

Prices on wider sizes furnished upon application.

### SPRING TEMPER BAND SAWS FOR SOFT METAL



Fig. No. 3470. For cutting aluminum, thin sheet steel, metal tubing and brass. Filed and set.

Width Inches	Thickness Inches	Teeth To Inch	LIST FOOT	List Weld
1/4	.025	23	8-10	\$0.14
3/8	.025	23	8-10	\$0.15
3/8	.032	21	8-10	\$0.16
1/2	.025	23	6-8-10	\$0.17
1/2	.032	21	6-8-10	\$0.18
5/8	.025	23	4-6-8-10	\$0.18
5/8	.032	21	4-6-8-10	\$0.20
5/8	.035	20	4-6-8-10	\$0.21
3/4	.035	20	4-6-8	\$0.23
1	.035	20	4-6-8	\$0.28
1-1/4	.042	19	3-4	\$0.35

**1 to 11 25% OFF**      **12 to 47 30% OFF**      **48 or More 35% OFF**

### SILVER SOLDER

Fig. No. 1566

This Special Silver Solder has proved to be the best adapted for brazing tempered steel. Price subject to change without notice, depending on market price of silver.

★ **NET OUNCE, \$1.00**



### BARNES BAND SAWS FOR HARD METAL

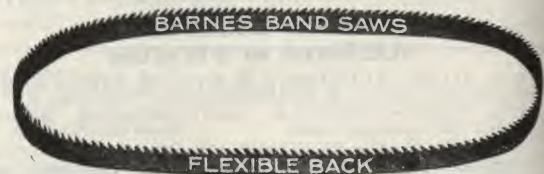


Fig. 2724

Hard edge. Flexible Back. Cannot be filed. All sizes furnished 10, 12, 14 and 18 teeth to the inch.

**TOOTH RECOMMENDATION:** 10 tooth saws for cold rolled steel. 12 tooth saws are furnished when specified. 14 tooth saws for tool steel. 18 tooth saws for tubing or thin stock.

**SPECIFY TEMPER A FOR:**—Cast Steel, High Speed Steels, Nickel, Chrome, Vanadium, and similar alloy steels.

**SPECIFY TEMPER B FOR:**—Cold Rolled Steel, Machine Steel, Cast and Wrought Iron, Structural, Manganese and Government Bronze.

#### LIST EACH

##### Saws Cut to Length Welded Ready for Use

Width Inches	1/4	3/8	1/2	5/8	3/4	1
Thickness	.025	.025	.028	.032	.032	.035
Length, Inclusive						
7'6" to 8'5"	1.12	1.20	1.28	1.62	1.78	2.10
8'6" to 9'5"	1.21	1.30	1.39	1.76	1.94	2.30
9'6" to 10'5"	1.30	1.40	1.50	1.90	2.10	2.50
10'6" to 11'5"	1.39	1.50	1.61	2.04	2.26	2.70
11'6" to 12'5"	1.48	1.60	1.72	2.18	2.42	2.90
12'6" to 13'5"	1.57	1.70	1.83	2.32	2.58	3.10
13'6" to 14'5"	1.66	1.80	1.94	2.46	2.74	3.30
14'6" to 15'5"	1.75	1.90	2.05	2.60	2.90	3.50
15'6" to 16'5"	1.84	2.00	2.16	2.74	3.06	3.70
16'6" to 17'5"	1.93	2.10	2.27	2.88	3.22	3.90
17'6" to 18'5"	2.02	2.20	2.38	3.02	3.38	4.10
18'6" to 19'5"	2.11	2.30	2.49	3.16	3.54	4.30
19'6" to 20'5"	2.20	2.40	2.60	3.30	3.70	4.50
20'6" to 21'5"	2.29	2.50	2.71	3.44	3.86	4.70

#### LIST EACH

##### In Stock. Brazed. Ready For Use.

Machines Used On	Length	Width	LIST EACH
Armstrong-Blum-Marvel	14' 8"	3/4"	\$2.90
Armstrong-Blum-Marvel	14' 8"	5/8"	\$2.60
Klemm No. 1	11' 2"	5/8"	\$2.04
Klemm No. 1	11' 2"	3/4"	\$2.26
Klemm No. 2	15' 8"	5/8"	\$2.74
Klemm No. 2	15' 8"	3/4"	\$3.06
Millband	12' 11"	1"	\$3.10
Napier, Type B	12' 3"	1"	\$2.90

#### DISCOUNT

1 to 11 Band Saws	15% OFF
12 to 47 Band Saws	20% OFF
48 or more Band Saws	25% OFF



DRILL ROD



Fig. No. 3269

A High Grade Crucible Cast Tool Steel

1 to 4 Pounds	15%	50 to 99 Pounds	52%
5 to 24 Pounds	33 1/2%	100 to 199 Pounds	62%
25 to 49 Pounds	44%	200 to 499 Pounds	67%

LIST POUND. 3 FOOT LENGTHS ONLY

Diam., Inches	List Per Lb.	Diam., Inches	List Per Lb.	Diam., Inches	List Per Lb.	Diam., Inches	List Per Lb.
1/16	\$2.25	7/32	\$0.75	23/64	\$0.60	19/32	\$0.55
3/32	1.75	15/64	.70	3/8	.60	5/8	.55
7/64	1.45	1/4	.65	25/64	.60	21/32	.55
1/8	1.30	17/64	.65	13/32	.60	11/16	.55
9/64	1.15	9/32	.65	7/16	.60	3/4	.55
5/32	1.05	19/64	.65	15/32	.60	13/16	.55
11/64	1.05	5/16	.60	1/2	.55	7/8	.55
3/16	.85	21/64	.60	17/32	.55	15/16	.55
13/64	.85	11/32	.60	9/16	.55	1	.55

STRAIGHT BESSEMER  
STEEL RODS

Fig. No. 2906

We carry these rods in four-foot lengths only. They are soft and easy to work and much stiffer than iron rods. They are round and true to size.

These rods are drawn especially for us, from refined steel, no flaws or seams, no hard spots or sand. They are coppered to prevent rust.

Nos. 10, 11, 12....List per Lb. \$0.20

Nos. 13, 14, 15....List per Lb. \$0.22

Nos. 16, 17, 18....List per Lb. \$0.27

Size 1/8 to 1/4 in.,  
by 32nds.....List per Lb. \$0.20

Size 9/32 to 1/2 in.,  
by 32nds.....List per Lb. \$0.20

PRICE.....★ NET LIST

BRASS ESCUTCHEON PINS

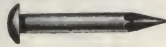


Fig. 2882

1 pound boxes—no less sold. Larger sizes can be furnished, prices on application.

LIST POUND

Wire Gauge, No B. W. G.	1/4	3/8	1/2	5/8	3/4
10	.....	\$0.85	\$0.80	\$0.78	\$0.76
11	.....	.95	.87	.84	.82
12	\$1.15	.98	.93	.90	.87
13	1.20	1.03	.98	.93	.90
14	1.25	1.05	1.00	.96	.92
15	1.35	1.15	1.07	1.00	.95
16	1.45	1.20	1.10	1.03	.99
17	1.60	1.40	1.25	1.17	1.10
18	1.90	1.50	1.35	1.27	1.20
19	2.15	1.75	1.60	1.45	1.35
20	2.35	2.10	1.95	1.80	1.65
21	2.75	2.50	2.30	.....	.....
22	3.15	2.85	2.60	.....	.....
24	3.50	3.10	2.85	.....	.....

DISCOUNT.....35% OFF

NO HEAD STANDARD  
TAPER KEY ASSORTMENT

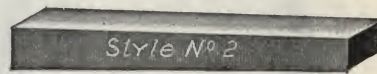


Fig. 4238

Square keys without a head. Taper is 1/8 inch to a foot. Milled lengthwise with grain of steel which gives an extra smooth surface. 50 keys assorted in cardboard box as follows:

- 6 Keys 1/8 by 1/8 by 1 1/2 inches
- 8 Keys 3/16 by 3/16 by 2 inches
- 13 Keys 1/4 by 1/4 by 2 1/2 inches
- 15 Keys 5/16 by 5/16 by 3 inches
- 6 Keys 3/8 by 3/8 by 3 inches
- 2 Keys 1/2 by 1/2 by 3 inches

★ NET ASSORTMENT, \$1.50

SQUARE GIBB KEYS WITH TAPER

Fig. No. 3110

1/8 Inch Taper to Foot

Sizes shown below are square under the head, tapering to the end, and are carried in stock. We can furnish all STANDARD sizes at regular list prices and same discounts as shown. Special sizes, prices on request. When ordering made to order sizes, specify width; depth at large end; length under head; and taper per foot.

\* Width given is dimension immediately under head: length is measured under head.

Width,* inches	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
Length,* inches	2	2 1/2	3	3 1/2	4	5	6	6	6
List per 100	\$10.90	\$12.25	\$14.60	\$17.75	\$22.30	\$35.60	\$56.00	\$76.55	\$101.00

Discount {

1 to 14  
LIST NET

15 to 24  
25% OFF

25 to 49  
33 1/3% OFF

50 or More  
46% OFF

THESE PRICES APPLY ON ONE SIZE ONLY, NOT ASSORTED SIZES.

WOODRUFF KEYSEAT CUTTERS

High Speed Steel  
1/2-inch Straight Shank



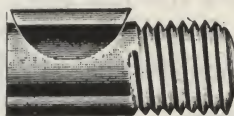
Fig. No. 2590

Right hand cutters only are stocked. Left hand cutter prices on request.

No.	Diam. Inches	Thick., Inches	List Each	No.	Diam. Inches	Thick., Inches	List Each
3	1/2	1/8	\$2.80	16	1 1/8	3/8	\$4.20
4	5/8	3/32	2.80	17	1 1/8	3/32	4.20
5	5/8	1/8	2.80	18	1 1/8	1/4	4.20
6	5/8	5/32	2.80	C	1 1/8	5/8	4.40
7	3/4	1/8	3.10	19	1 1/4	1/8	4.60
8	3/4	5/32	3.10	20	1 1/4	3/32	4.60
9	3/4	3/16	3.10	21	1 1/4	1/4	4.60
10	7/8	5/32	3.40	D	1 1/4	1/8	4.90
11	7/8	1/8	3.40	E	1 1/4	3/8	4.90
12	7/8	7/32	3.40	22	1 3/8	1/4	5.00
A	7/8	1/4	3.40	23	1 3/8	1/8	5.40
13	1	1/8	3.80	F	1 3/8	3/8	5.40
14	1	3/32	3.80	24	1 1/2	1/4	5.50
15	1	1/4	3.80	25	1 1/2	1/8	5.90
B	1	5/16	4.00	G	1 1/2	3/8	5.90

DISCOUNT, High Speed Steel.....30% OFF

WOODRUFF KEYS — CARBON STEEL



2591A KEY ASSORTMENT

★ NET 100 In Box, \$2.25

These prices apply on one size only, not assorted sizes.

Fig. 2591

No.	Inches Width	Inches Diam.	100 List	No.	Inches Width	Inches Diam.	100 List
1	1/8	1/2	\$0.17	17	3/32	1 1/8	1.45
2	3/8	1/2	.20	18	1/4	1 1/8	1.70
3	1/8	1/2	.23	C	5/8	1 1/8	2.05
4	3/8	5/8	.26	19	1/8	1 1/4	1.60
5	1/8	5/8	.33	20	3/32	1 1/4	1.85
6	3/8	5/8	.42	21	1/4	1 1/4	2.05
61	1/8	5/8	.50	D	1/8	1 1/4	2.45
7	1/8	3/4	.40	E	3/8	1 1/4	2.85
8	3/8	3/4	.49	22	1/4	1 3/8	2.45
9	1/8	3/4	.56	23	1/8	1 3/8	2.85
91	1/4	3/4	.75	F	3/8	1 3/8	3.20
10	3/8	7/8	.70	24	1/4	1 1/2	2.80
11	1/8	7/8	.80	25	1/8	1 1/2	3.45
12	3/8	7/8	.90	G	3/8	1 1/2	4.00
A	1/4	7/8	1.02				
13	1/8	1	1.00				
14	3/8	1	1.18				
15	1/4	1	1.30				
B	1/8	1	1.55				
16	3/8	1 1/8	1.25				

DISCOUNTS

1 to 99	.....NET
100 to 999	.....15%
1000 to 4999	.....25%
5000 to 9999	.....35%
10000 and more	.....40%

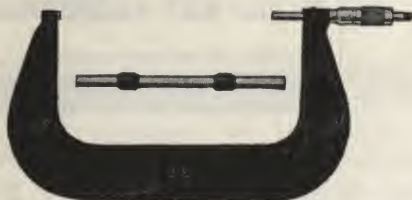


# BROWN & SHARPE TOOLS

## B. & S. MICROMETER CALIPERS



Fig. 2956—Illustrating 0 to 1 Inch



Illustrating Type Furnished For Sizes 1 to 12 Inch

These I-section enameled frames give rigidity and strength with lightness. With wear resisting anvil and spindle, easy reading graduations and figures, and patented adjustable thimble.

\* Clamp rings are regularly furnished on all numbers except 60 and 62.

† Wooden cases furnished for sizes 71, 72, 73, 74, 75 and 76.

Ratchet Stop, add 50 cents to list.

### LIST PRICES EACH

Mfrs. No.	Range Inches	By Thousandths		Ten-Thousandths	
		Without Stand'd	With Stand'd	Without Stand'd	With Stand'd
59	0 to 1	\$ 7.25	.....	\$ 9.00	.....
60*	1 to 2	7.00	\$ 8.00	.....	.....
61	1 to 2	8.00	\$ 9.00	\$ 9.75	\$10.75
62*	2 to 3	7.75	\$ 9.00	.....	.....
63	2 to 3	8.75	\$10.00	\$10.50	\$11.75
65	3 to 4	9.50	\$11.00	\$11.25	\$12.75
67	4 to 5	\$10.25	\$12.00	.....	.....
69	5 to 6	\$11.00	\$13.00	.....	.....
71†	6 to 7	\$12.00	\$14.25	.....	.....
72†	7 to 8	\$13.00	\$15.50	.....	.....
73†	8 to 9	\$14.00	\$16.75	.....	.....
74†	9 to 10	\$15.00	\$18.00	.....	.....
75†	10 to 11	\$16.00	\$19.25	.....	.....
76†	11 to 12	\$17.00	\$20.50	.....	.....

### CASES FOR MICROMETERS

For No. ..	59	60	61	62	63	65	67	69
List .....	\$1.25	\$1.60	\$1.60	\$3.00	\$3.00	\$3.50	\$4.00	\$4.75

## B. & S. MICROMETER CALIPERS



Fig. No. 8RS

(Illustrates No. 8RS caliper, but shows general style of all numbers.)

No. 8B&S—Range 0 to 1 inch by thousandths, with table of decimal equivalents. Has clamp ring.  
Without case .....List Each, \$9.50

No. 8RS—Range 0 to 1 inch, by thousandths, with table of decimal equivalents. Has clamp ring and ratchet stop.  
Without case .....List Each, \$10.00

No. 10B&S—Range 0 to 1 inch, by ten thousandths as well as thousandths. Has clamp ring.  
Without case .....List Each, \$11.25

No. 10RS—Range 0 to 1 inch, by ten thousandths as well as thousandths. Has clamp ring and ratchet stop.  
Without case .....List Each, \$11.75

Case for any of the above tools....List Extra, \$1.25

## B. & S. MICROMETER CALIPERS



Fig. 4867

Range 0 to 1 inch. Has enameled, I-section frame. The anvil projects 3/16 inch—a convenience in measuring counterbores, slots, etc.

Mfrs. No.	Reading By	Ratchet Stop	LIST EACH	Case, Extra
11	Thousandths	Without	\$6.25	\$1.25
11RS	Thousandths	With	\$6.75	\$1.25
11A	Ten-Thousandths	Without	\$8.00	\$1.25
11ARS	Ten-Thousandths	With	\$8.50	\$1.25

## B. & S. MICROMETER CALIPERS



Fig. 4863

Range 0 to 1 inch. With clamp ring. Can be used in places where anvil of usual style will not enter. With table of decimal equivalents.

Mfrs. No.	Reading By	Ratchet Stop	LIST EACH	Case, Extra
12	Thousandths	Without	\$9.50	\$1.25
12RS	Thousandths	With	\$10.00	\$1.25
13	Ten-Thousandths	Without	\$11.25	\$1.25
13RS	Ten-Thousandths	With	\$11.75	\$1.25

## B. & S. MICROMETER CALIPERS

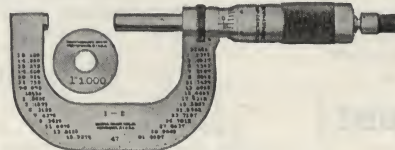


Fig. 4241

Range 1 to 2 inch. Has clamp ring. A standard is furnished for adjusting the micrometer.

Mfrs. No.	Ratchet Stop	Reading By	LIST EACH
47	Without	Thousands	\$10.50
47RS	With	Thousands	\$11.00
48	Without	Ten-Thousandths	\$12.25
48RS	With	Ten-Thousandths	\$12.75
Case .....		List Extra, \$1.60	

## B. & S. MICROMETER CALIPERS



Fig. 4242

Range 0 to 4 inches by thousandths. Does work for which a set of four micrometers was formerly required. In finished wooden case. Furnished with ratchet stop and set of three standards unless otherwise ordered.

Mfrs. No.	Ratchet Stop	Standards	LIST EACH
54	Without	Without	\$18.00
54S	Without	With	\$21.75
54R-S	With	Without	\$18.50
54RS-S	With	With	\$22.25

**DISCOUNT** All Brown & Sharpe Tools on This Page. .... **10% OFF**



# SLOCOMB MICROMETER CALIPERS

Fig. 3330

0 to 1 Inch  
Illustrated1 to 2 Inch  
Illustrated

Plain. Graduated to read by thousandths. Drop-forged frame of I section style giving great strength and rigidity with little weight. Decimal equivalents stamped on thimble. Finished in black enamel. Friction Stop is positive with no parts to get out of order, 50 cents list extra.

## LIST PRICES

Size Inches	List Each	Size Inches	List Each	Size Inches	List Each
0 to 1.....	\$ 6.25	8 to 9.....	\$13.00	16 to 17....	\$23.00
1 to 2.....	7.00	9 to 10.....	14.00	17 to 18....	25.00
2 to 3.....	7.75	10 to 11....	15.00	18 to 19....	27.00
3 to 4.....	8.50	11 to 12....	16.00	19 to 20....	30.00
4 to 5.....	9.25	12 to 13....	17.00	20 to 21....	33.00
5 to 6.....	10.00	13 to 14....	18.00	21 to 22....	36.00
6 to 7.....	11.00	14 to 15....	19.00	22 to 23....	39.00
7 to 8.....	12.00	15 to 16....	21.00	23 to 24....	42.00

With Friction Stop.....Extra \$0.50  
Graduated to read to .0001 extra up to 6 inch size..... 1.75



Fig. 4333

A set with range 0 to 4 inches by thousandths. For automotive repair and regrinding work. With micrometer, four interchangeable anvils, and three end measures for checking purposes. Friction stop. Hardwood case.

Mfrs. 46. Plain Reading .....List Set \$21.75  
Mfrs. 45. Direct Reading ....List Set 32.00

## SLOCOMB MICROMETER CALIPERS



Mfrs. 35. Fig. 3329. Mfrs. 35.

Mfrs. 26.

Graduated to read thousandths. Frame is drop forged from bar steel. Highly polished. Raised, bright figures plainly show decimal equivalents. Raised edges.

### MFRS. 35. DIRECT READING. 0 TO 1 INCH. LIST EACH

Direct reading with NO CHANCE OF ERROR. Balanced for one hand operation. Time saved. Calculating saved. Compact, tested, counting device combined with micrometer. Perfect accuracy to thousandths of an inch.

With Morocco Case.....List Each, \$17.50

### MFRS. 26. PLAIN READING. 0 TO 1 INCH. LIST EACH

	Without Lock Nut	With Lock Nut
Without Friction Stop .....	\$7.50	\$8.50
With Friction Stop on End.....	8.00	9.00
With Friction on Thimble Center.....	8.50	9.50
Graduated to read ten thousandths.....	Add to Above	1.75

## DISCOUNT

List Each \$2.25  
**10% OFF**

## BROWN & SHARPE MICROMETER CALIPERS

### B. & S. BENCH MICROMETER CALIPER



Fig. 4870. Mfrs. 240RS

Range 0 to 1 inch by ten thousandths as well as thousandths of an inch. With ratchet stop. The small auxiliary thimble reads ten thousandths of an inch direct. Parts of ten-thousandths can be estimated readily. For very fine measurements. Base is rigid and heavy to prevent tool from being upset easily.

LIST EACH, \$25.00

### B. & S. SCREW THREAD MICROMETER CALIPERS

With or without ratchet stop. The end of the spindle is pointed. The V in anvil is accurately ground and anvil is free to rotate. End of the point and bottom of the V have allowance for clearance so they will not rest on the bottom or top of the thread to be measured. Anvil is so made that pitch diameters of very short screws with fine pitches can be measured. When set at zero, the pitch lines of spindle and anvil coincide.

Only the thread itself is measured. A standard is furnished for adjusting the 2 inch micrometer.

Tools are furnished for (1) V and American National or United States Standard, and (2) for Whitworth Standard Threads.

When ordering SPECIFY thread form to be measured.

#### LIST EACH

Capacity Inches	Threads To The Inch	Mfrs. No.	Without Ratchet	Mfrs. No.	With Ratchet	Case, Extra
1/2	48 to 64	150*	\$11.50	150RS*	\$12.00	\$1.20
1	8 to 13	152*	\$12.00	152RS*	\$12.50	\$1.25
1	14 to 20	153*	\$12.00	153RS*	\$12.50	\$1.25
1	22 to 30	154*	\$12.00	154RS*	\$12.50	\$1.25
1	32 to 40	155*	\$12.00	155RS*	\$12.50	\$1.25
2	4-1/2 to 7	156*	\$14.50	156RS*	\$15.00	\$1.60
2	8 to 13	157*	\$14.50	157RS*	\$15.00	\$1.60
2	14 to 20	158*	\$14.50	158RS*	\$15.00	\$1.60
2	22 to 30	159*	\$14.50	159RS*	\$15.00	\$1.60

\*Whitworth Standard, range 8 to 12 threads each inch only.

\*Not for Whitworth Standard.



Fig. 4869

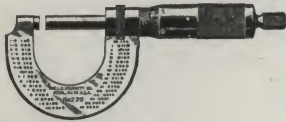
## DISCOUNT

**10% OFF**



## STARRETT MICROMETER CALIPERS

### STARRETT ONE INCH MICROMETER CALIPERS



#### Starrett No. 230-S

For measurements by thousandths up to one inch. The frame is cut for use in places where the ordinary frame cannot be inserted. The width of the anvil end of the frame is approximately  $1\frac{1}{2}$  inch. Has lock nut and ratchet stop.

In Pasteboard Box. List Each, \$10.00  
With Leather Case. List Each, 11.25

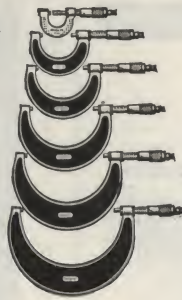
#### Starrett No. 231-S

For measurement by ten-thousandths up to one inch.  
Has lock nut, ratchet stop and short anvil.

In Pasteboard Box. List Each, \$11.75  
With Leather Case. List Each, 13.00

Both No. 230S and No. 231S sent without case unless otherwise ordered.

### STARRETT MICROMETER CALIPERS—No. 226-S



These calipers meet the demand for accurate gages at a low price. They are better adapted for general use than the Vernier or bar micrometer, as they can be set quickly for the different measurements and are more easily read.

Each caliper is graduated to read by thousandths of an inch, is furnished with lock nut, and is sent with or without ratchet stop as desired.

The frames are drop forged from bar steel and are nicely finished.

The 1 inch has the decimal equivalents stamped on the frame. The other sizes are marked to show their capacity.

Standards for use in adjusting these calipers will be furnished when desired at prices given below.

Calipers will be supplied singly or in sets as desired; and will be sent with ratchet stop and without standard unless otherwise ordered. Prices for leather cases on application.

#### LIST EACH

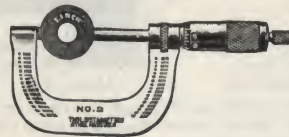
1 inch, with decimal equivalents, No. 201S, without ratchet stop....	\$ 9.50
1 inch, with decimal equivalents, No. 3S, with ratchet stop.....	10.00
2 inch, from 1 inch to 2 inches, without ratchet stop.....	8.50
2 inch, from 1 inch to 2 inches, with ratchet stop.....	9.00
1 inch standard.....	1.00
3 inch, from 2 inches to 3 inches, without ratchet stop.....	10.00
3 inch, from 2 inches to 3 inches, with ratchet stop.....	10.50
2 inch standard.....	1.25
4 inch, from 3 inches to 4 inches, without ratchet stop.....	10.75
4 inch, from 3 inches to 4 inches, with ratchet stop.....	11.25
3 inch standard.....	1.50
5 inch, from 4 inches to 5 inches, without ratchet stop.....	12.00
5 inch, from 4 inches to 5 inches, with ratchet stop.....	12.50
4 inch standard.....	1.75
6 inch, from 5 inches to 6 inches, without ratchet stop.....	13.00
6 inch, from 5 inches to 6 inches, with ratchet stop.....	13.50
5 inch standard.....	2.00

### STARRETT TWO INCH MICROMETER CALIPERS

#### Starrett No. 2-S

For measurement by thousandths from one inch to two inches, with lock nut, ratchet stop, and one inch test gauge.

In Pasteboard Box. List Each, \$11.00  
With Leather Case. List Each, 12.60



#### Starrett No. 213-S

For measurement by ten thousandths from one inch to two inches, with lock nut, ratchet stop, and one inch test gauge.

In Pasteboard Box. List Each, \$12.75  
With Leather Case. List Each, 14.35

Both No. 2S and No. 213S sent without case unless otherwise ordered.

### STARRETT 436 MICROMETER CALIPERS



Fig. 4871. Mfrs. 436 Series

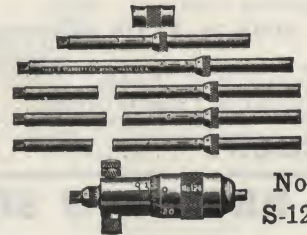
Readings by the thousandths of an inch. Can be furnished to read ten thousandths of an inch at an additional cost of \$1.75 each to above list. Decimal equivalents on the thimble. Black enameled frame. \*\*In finished wood case.

Size Inches	Range Inches	Without Ratchet		With Ratchet		With Lock Nut		Standards Extra	Leather Case Extra
		No Lock	Nut	No Lock	Nut	No Lock	Nut		
1	0-1	\$ 6.25		\$ 6.75		\$ 7.25		\$ 7.75	\$1.25
2	1-2	\$ 7.00		\$ 7.50		\$ 8.00		\$ 8.50	\$2.50
3	2-3	\$ 7.75		\$ 8.25		\$ 8.75		\$ 9.25	\$3.00
4	3-4	\$ 8.50		\$ 9.00		\$ 9.50		\$10.00	\$3.50
5	4-5	\$ 9.25		\$ 9.75		\$10.25		\$10.75	\$4.00
6	5-6	\$10.00		\$10.50		\$11.00		\$11.50	\$4.75
7	6-7	\$11.00		\$11.50		\$12.00		\$12.50	\$5.00
8	7-8	\$12.00		\$12.50		\$13.00		\$13.50	\$5.50
9	8-9	\$13.00		\$13.50		\$14.00		\$14.50	\$6.00
10	9-10	\$14.00		\$14.50		\$15.00		\$15.50	\$6.50
11	10-11	\$15.00		\$15.50		\$16.00		\$16.50	\$7.00
12	11-12	\$16.00		\$16.50		\$17.00		\$17.50	\$7.50

#### MICROMETER CALIPER SETS

Mfrs. No.	Range Inches	Sizes	Ratchet Stop	Without		With		Case Extra
				Standards	Lock Nut	Lock Nut	Lock Nut	
436A	0-3	1, 2, 3	Without	2-\$2.25	\$ 21.00	\$ 24.00	\$4.00	
436B	0-6	1, 2, 3, 4, 5, 6	Without	5-\$7.50	\$ 48.75	\$ 54.75	\$7.50	
436C	0-3	1, 2, 3	With	2-\$2.25	\$ 22.50	\$ 25.50	\$4.00	
436D	0-6	1, 2, 3, 4, 5, 6	With	5-\$7.50	\$ 51.75	\$ 57.75	\$7.50	
436E	6-12	7, 8, 9, 10, 11, 12	Without	Set-\$17.25	\$ 87.00	\$ 93.00	With	
436F	6-12	7, 8, 9, 10, 11, 12	With	Set-\$17.25	\$ 90.00	\$ 96.00	With	
436G	0-12	1 to 12	Without	Set-\$24.75	\$139.25	\$151.25	With	
436H	0-12	1 to 12	With	Set-\$24.75	\$145.25	\$157.25	With	

### STARRETT INSIDE MICROMETER CALIPERS



No. S-124

For internal and linear measurements; measuring cylinders, rings and parallel surfaces; for setting calipers, comparing gages, etc. Micrometer screw in head has 1/2 inch movement. By means of the extension rods sizes given below can be obtained. A standard gage or ring slips on rods under collar, to further extend the rod. Contact surfaces are hardened. Provision is made for adjustment to compensate for wear of screw and contact surfaces.

Auxiliary handle for use in places too small for the hand, \$1.00 extra. Furnished without case unless case is specified.

SET A. 6 rods and one 1/2-inch gage, measures from 2 to 8 inches.

Without Case ..... LIST EACH, \$7.25  
With Case ..... LIST EACH, \$9.00

SET B. 10 rods and one 1/2-inch gage, measures from 2 to 12 inches.

Without Case ..... LIST EACH, \$8.50  
With Case ..... LIST EACH, \$11.25

SET C. 4 rods and one 1-inch and two 2-inch gages, capacity 8 to 32 inches.

Without Case ..... LIST EACH, \$10.25  
With Case ..... LIST EACH, \$14.25

SET D. Comprises sets A and C, and measures from 2 to 32 inches.

Without Case ..... LIST EACH, \$17.50  
With Case ..... LIST EACH, \$22.50

**DISCOUNT** ..... **10% OFF**



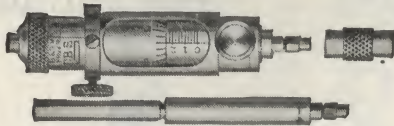
**INSIDE MICROMETER NO. 264 B. & S.**

Fig. No. 264 B. &amp; S.

Range, 2 to 8 inches by thousandths of an inch  
Has 6 measuring rods

This tool is particularly adapted for all ordinary motor service requirements for measuring cylinder bores, rings, and any other inside measuring jobs. It consists of a holder with a 1/2-inch micrometer screw and extension rods.

The holder of this tool has a clamping device which clamps the thimble and thus prevents the screw from turning when in use.

The collar which is provided, slips over the end of the rod and can be set accurately against the micrometer head. In order to obtain the full one-inch range with each rod, the spacing collar must be added.

Each rod has a shoulder one inch from the end which fits against the micrometer head. When the rod is in position with shoulder against the head, the first half of the inch can be measured (example, 3 to 3 1/2 in.). When the spacing collar is in place on the rod the last half of the inch can be measured (example 3 1/2 to 4 in.).

The measuring ends of the rods are hardened and so designed that it is possible to adjust or compensate for wear by loosening the lock nut and turning the screw with the hardened head one way or the other as desired.

Without case ..... List Each, \$10.00  
With case ..... List Each, 11.75

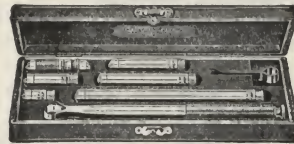
**LUFKIN INSIDE MICROMETER CALIPERS**

Fig. 4872

For measuring by thousandths of an inch. Micrometer Head will measure small diameters, slots, etc., down to 1-1/2 inches. Measuring Rods, or extensions, are marked with the length, and are made of steel tubing, light weight, yet very rigid. Measuring Rods can be added to either or both ends of the Micrometer Head. The head can be kept central, this is nearest the line of vision and measurements are easily read. Measuring Rod is adjustable for length, by means of the hardened plug at end. Handle, (furnished only with Sets 680A, 680B and 6801D), maintains perfect balance and may be attached anywhere along the Head or Rods.

Mfrs. No.	Range Inches	Measuring Rods, No.	Movement of Screw	Weight Ounces	LIST EACH
680A	1-1/2 to 8	5	1/2 Inch	8-1/2	\$12.00
680B	1-1/2 to 12	8	1/2 Inch	12	\$15.00
681C	4 to 24	7	1 Inch	27	\$18.00
681D	4 to 32	8	1 Inch	39	\$20.00
681K	4 to 20	10	1	48	\$24.00
6801D	1-1/2 to 32	10	1/2 and 1	56	\$30.00

Extra extension rods to increase the range of the set can be furnished, prices on request.

**B. & S. MICROMETER DEPTH GAUGE**

Fig. 607 B. &amp; S.

The micrometer screw has a movement of 1 inch and the range is obtained by inserting into the gage the measuring rod desired. The rod ends are hardened. The bases are about 9/16 inch thick and hardened.

Base Inches	Ratchet Stop	LIST EACH	List Case
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FOR 0 TO 3 INCH DEPTH WITH 3 MEASURING RODS			
2-1/2	Without	\$9.00	\$1.80
2-1/2	With	\$9.50	\$1.80
4	Without	\$11.50	\$2.20
4	With	\$12.00	\$2.20

FOR 3 TO 9 INCH DEPTH WITH 6 MEASURING RODS			
4	Without	\$15.00	\$4.00
4	With	\$15.00	\$4.00

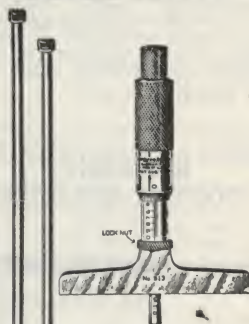
**LUFKIN MICROMETER DEPTH GAUGE**

Fig. 4026

Range 0 to 3 inches by thousandths of an inch. Rapid reading. For measuring the depth of holes, slots, etc., with micrometer accuracy. Three measuring rods. With lock nut for holding the reading.

Mfrs.	Base	LIST EACH
515	5 Inch	\$13.50
513	3 Inch	\$10.50

**BROWN & SHARPE TELESCOPING GAUGES**

Fig. 4244

Compact, simple and durable. For use with a micrometer caliper to determine quickly internal measurements which are ordinarily hard to obtain. Telescoping head of gauge is compressed and inserted into hole or slot to be measured. Plunger of head will expand to exact size of hole. Head is then locked by a turn of knurled screw in end of handle, and gauge is withdrawn and measured with micrometer. Ends of each head are hardened and faces are ground on radius of smallest hole gauge will enter, thus adapting tool for accurate use on curved surfaces. The five heads are interchangeable.

Mfrs. No.	Range Inches	LIST EACH
590 Set	1/2 to 6	\$12.00
590A Handle		\$.50
590B Head	1/2 to 3/4	\$2.00
590C Head	3/4 to 1 1/4	\$2.00
590D Head	1 1/4 to 2 1/8	\$2.50
590E Head	2 1/8 to 3 1/2	\$2.50
590F Head	3 1/2 to 6	\$3.00

**LUFKIN TELESCOPING GAGE**

Accurately and quickly takes the inside size of slots or holes. Two plungers, one telescoping into the other, and held under constant spring, they are locked by a slight turn of the knurled screw. The handle can be locked in the center of the plungers, giving perfect balance.

Gage Size	Range Inches	Weight Ounces	LIST EACH
79A	1/2 to 3/4	1/2	\$1.80
79B	3/4 to 1-1/4	1/2	\$2.10
79C	1-1/4 to 2-1/8	1	\$2.40
79D	2-1/8 to 3-1/2	3	\$3.00
79E	3-1/2 to 6	3-1/2	\$3.60

**SET IN LEATHERETTE CASE**

Gage	Range	Weight	LIST
79SS	1/2 to 2-1/8	4	\$7.30
79S	1/2 to 6	9	\$14.40

**LUFKIN STEEL RULES WITH HOLDER**

For measuring in small places, grooves, narrow shoulders, recesses, keyways, etc. 1/4, 3/8, 1/2, 3/4, and 1 inch rules are thin tempered steel, machine divided, carefully ground, and well finished. Graduated: one side 32nds; other side 64ths inch. Holder is 4 inches long and clamps up to 1/16 inch by a slight turn of the knurled nut. Two slots, holds rule at 30 or 45 degrees.

20S Set with Case....	LIST \$3.00
2010 Rules Only	LIST EACH \$0.35
20 Holder Only	LIST EACH \$0.75

Fig. 4874

**DISCOUNT****10% OFF**



**BROWN & SHARPE  
RULE DEPTH GAGE**

Fig. 4875. Mfrs. 615.

Hardened steel head, 2-1/2 inches wide by 1/8 inch thick. Narrow tempered steel rule graduated 32nds and 64ths. (Graduation 64ths and 100ths on request). The rod is 5/64 inch diameter.

With Blade	With Rod	Range Inches	LIST EACH
4 Inch	None	0 to 3	\$1.35
4 Inch	4 Inch	0 to 3	\$1.55
6 Inch	None	0 to 5	\$1.50
6 Inch	6 Inch	0 to 5	\$1.70
With Hook Rule .....			Add, \$0.50

**BROWN & SHARPE DRILL  
POINT GAUGE AND  
DEPTH GAGE**

Fig. 4243

Mfrs. 617. Range 0 to 5 inches. Used for checking the angles of drill points when grinding them and determines whether the point is central. May be used as a depth gauge for finding the depths of holes as small as 1/32 inch diameter.

Hardened steel head 2 1/2 inches wide and 1/4 inch thick. Top of head is carefully ground to angles of 59° on each side of the blade and is accurately graduated. Blade is 6 inches long.

With blade only.....List Each, \$2.20  
With blade and rod..List Each, \$2.40

**LUFKIN DEPTH GAGE**Fig. 4014.  
Mfrs. 511

6 inch. With 30, 45 and 60 degree lines on one side of the case hardened steel head. Blade can be swung and set. Can also be used as a protractor. 3/16 inch spring tempered blade marked one side 32nds, other side 64ths.

Without Hook  
LIST EACH ....\$2.25

With Hook  
LIST EACH ....\$2.75

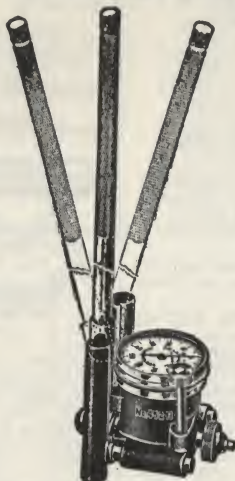
**STARRETT IMPROVED  
CYLINDER GAGE**

Fig. 4876. Mfrs. 452B

Ideal for automotive repair shops. Combination rigid and toggle joint handle permits universal application. The handle can be made rigid in a perpendicular or angular position, or it may, by a turn of the handle be a universal joint with a wide sweep. The locking mechanism clamps the adjustable contact points which are synchronized with the indicating needle. Lock before removing from cylinder and measure for the exact minimum or maximum diameter with a micrometer. Forged, hardened, and ground steel sled.

LIST EACH .....\$17.50

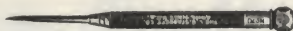
**STARRETT  
POCKET SCRIBERS**

Fig. 4877

Made from steel tubing, tempered, knurled and nickel plated. The scriber is reversible, telescoping into the stock, and is held by a slight turn of the chuck. Hexagon head prevents rolling off the bench.

Mfrs.	Diameter Handle	Length of Blade	LIST EACH
70A	1/4	2-3/8	\$0.35
70B	3/8	2-7/8	\$0.50

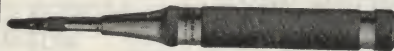
**BROWN & SHARPE  
AUTOMATIC  
CENTER PUNCHES**

Fig. 4251

Striking mechanism is enclosed in the knurled handle. A downward pressure releases the striking block and makes the impression. The punch marks are of uniform depth. Points on styles 2 and 3 can be taken out for grinding or replacement. Style 1 is for delicate work.

Mfrs. No.	Length Inches	Diam. Inch	LIST EACH	Extra Points
770-1	4 1/8	3/8	\$2.00	\$0.60
770-2	5 1/4	5/8	\$3.00	\$0.20
770-3	6	3/4	\$4.00	\$0.20

**STARRETT  
PENCIL DIVIDER**

Fig. 4880. Mfrs. 596

For layout work on metal, and for pencil drawings. Not for small work. Opening of points 3/16 to 3/8 inches. Round legs with two small chucks for holding the steel points and pencil lead of .086 diameter. The pencil leg is cut out for readily removing broken or lodged leads. Bright nickel plate. 3-1/4 inches from fulcrum to scriber points. No leads furnished.

LIST EACH .....\$2.00

**BROWN & SHARPE  
COMBINATION  
FIRM-JOINT CALIPER**

Fig. 4879. Mfrs. 833

For inside and outside measurements. The legs and connecting member are each 8 inches long. The caliper is firm, rigid and compact. Takes outside measurements over diameters to 11 inches and over greater lengths where tool does not have to span a periphery. Takes inside measurements to 20 inches.

LIST EACH .....\$2.50

**LUFKIN  
STEEL PROTRACTOR**

Fig. 4878. Mfrs. 891

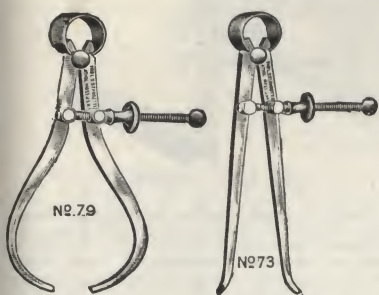
Head being rectangular gives four working faces. Back of head is flat. Graduated in degrees from 0 to 180, and has two rows of figures reading in opposite directions. The indicating arm of the blade has a line graduation for accurately setting and reading the Protractor. The blade is six inches long, has spring giving constant tension and can be securely set by means of the knurled thumb nut.

LIST EACH .....\$3.00

**DISCOUNT****10% OFF**



## STARRETT YANKEE SPRING OUTSIDE AND INSIDE CALIPERS AND DIVIDERS

Mfrs. 79-S  
Outside CaliperMfrs. 73-S  
Inside Caliper

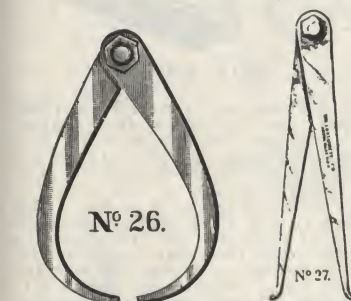
Size, In.	With Solid Nut, List Each	With Spring Nut, List Each
2 1/2	\$0.80	\$1.00
3	.85	1.05
4	.90	1.10
5	1.00	1.15
6	1.05	1.20
8	1.20	1.40
10	1.65	1.80
12	1.80	2.00

Mfrs. 83-S  
Spring Divider

Size In.	Spring Nut Each	Solid Nut Each
2 1/2	\$1.00	\$0.80
3	1.05	.85
4	1.10	.90
5	1.15	1.00
6	1.20	1.05
8	1.50	1.35

Sent with solid nut  
unless otherwise or-  
dered.

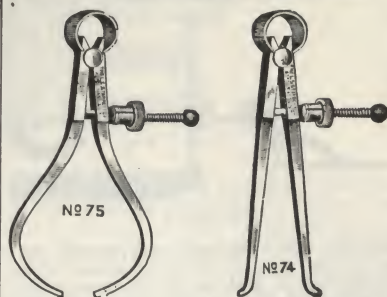
## STARRETT IMPROVED FIRM-JOINT CALIPERS

Mfrs. 26-S  
Outside CaliperMfrs. 27-S  
Inside Caliper

Their capacity is about one-third greater than the size given; for example, the 30 inch size will caliper 33 inches, and the 36 inch size will caliper 46 inches diameter.

Length	List Each
3 inch	\$0.50
4 inch	.60
5 inch	.70
6 inch	.80
8 inch	1.00
10 inch	1.10
12 inch	1.20
14 inch	1.80
16 inch	2.10
18 inch	2.55
20 inch	3.00
24 inch	3.60
30 inch, No. 26 only	6.00
36 inch, No. 26 only	7.20

## STARRETT FAY SPRING OUTSIDE AND INSIDE CALIPERS AND DIVIDERS

Mfrs. 75-S  
Outside CaliperMfrs. 74-S  
Inside Caliper

Size	Spring Nut, Solid Nut, List Each	List Each
2 1/2 inch	\$1.40	\$1.20
3 inch	1.40	1.20
4 inch	1.50	1.35
5 inch	1.50	1.35
6 inch	1.80	1.65
8 inch	2.10	1.95

Mfrs. 77-S  
Spring Divider

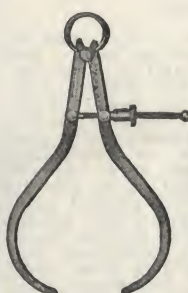
Size Inch	Spring Nut Each	Solid Nut Each
2 1/2	\$1.40	\$1.20
3	1.40	1.20
4	1.70	1.50
5	1.70	1.50
6	2.10	1.95
8	2.40	2.25

Sent with spring  
nut unless ordered  
with solid nut.

## B. & S. SPRING CALIPERS

Mfrs. 810 B&S  
Spring Dividers

Size Inch	Spring Nut	Solid Nut
2-1/2	\$1.00	\$0.80
3	\$1.05	\$0.85
4	\$1.10	\$0.90
5	\$1.15	\$1.00
6	\$1.20	\$1.05
8	\$1.50	\$1.35

Mfrs. 811 B&S  
Outside  
Spring Calipers

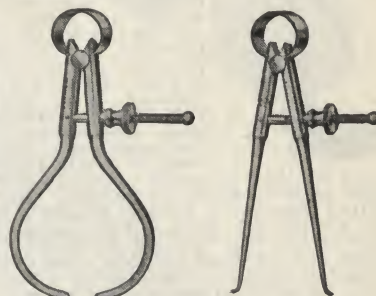
Size Inch	Sprg. Nut	Solid Nut
2-1/2	\$1.00	\$0.80
3	\$1.05	\$0.85
4	\$1.10	\$0.90
5	\$1.15	\$1.00
6	\$1.20	\$1.05
8	\$1.40	\$1.20

Mfrs. 812 B&S  
Inside  
Spring Calipers

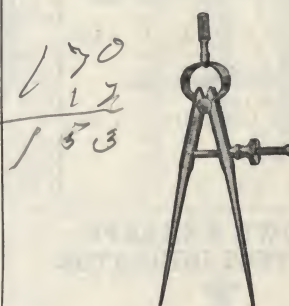
Size Inch	Sprg. Nut	Solid Nut
2-1/2	\$1.00	\$0.80
3	\$1.05	\$0.85
4	\$1.10	\$0.90
5	\$1.15	\$1.00
6	\$1.20	\$1.05
8	\$1.40	\$1.20

## BROWN & SHARPE TOOLMAKERS' SPRING OUTSIDE AND INSIDE CALIPERS AND DIVIDERS

Fulcrum stud is hardened. Spring is unusually stiff and is rigid preventing side deflection of the legs. Steel legs, round and polished. Measuring points come together evenly.

Mfrs. 801-B & S  
Outside CaliperMfrs. 802-B & S  
Inside Caliper

Size, Inches	No. 801, List Each	Size, Inches	No. 802, List Each
2	\$1.20	2	\$1.20
3	1.50	3	1.50
4	1.80	4	1.80
5	1.80	5	1.80
6	2.10	6	2.10

Mfrs. 800-B & S  
Spring Dividers

Size Inch	List Each	Size Inch	List Each
2	\$1.20	5	\$1.80
3	1.50	6	2.10
4	1.80		

## BROWN & SHARPE FIRM- JOINT HERMAPHRODITE CALIPERS



Mfrs. 835-B &amp; S

Size Inches	With adjustable Point List Each	With Solid Point List Each
4	\$0.80	\$0.69
6	1.00	.80
8	1.20	1.00

**DISCOUNT** ..... **10% OFF**



## BROWN & SHARPE UNIVERSAL SURFACE GAUGES



Fig. 4252

Wide range of adjustments are readily made by means of the knurled adjusting screw. Spindle and the bolt and bushing through which it passes are locked in the position of approximate adjustment by the knurled nut at the boss on the base. The fine adjustment can be used to obtain the exact setting. Base is convenient to handle. V-shaped groove in bottom adapts it for cylindrical work. Two gauge pins in the rear end can be pushed down and used against the edge of a surface plate or the side of a T-slot. Spindle swivels and can be securely clamped in any position from horizontal to vertical either above or below the base. Scriber may be used below the base as a depth gauge. For small work the spindle may be removed and scriber inserted in spindle swiveling bolt where it is readily adjusted.

Mfrs. No.	With Spindle Inches	Hardened Base	LIST EACH
<b>2-1/4 BY 1-1/2 INCH BASE</b>			
620A	4	No	\$3.50
620B	4	Yes	\$4.10
<b>3-1/8 BY 2-1/2 INCH BASE</b>			
621A	9	No	\$3.50
621B	9 & 12	No	\$4.00
621C	9	Yes	\$4.75
621D	9 & 12	Yes	\$5.25
<b>4 BY 3-3/8 INCH HEAVY BASE</b>			
622A	12	No	\$4.85
622B	12 & 18	No	\$5.50
622C	12	Yes	\$5.85
622D	12 & 18	Yes	\$6.50

## BROWN & SHARPE DIAL TEST INDICATOR

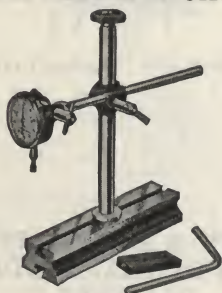


Fig. 4252

Spindle movement of 3/10 inch. Has tubular upright and lever style clamps. Dial holding rod is 3/8 inch in diameter and 8-1/2 inches long. Upright is 3/4 inch in diameter and 8-3/4 inches long. Dial diameter is 2-7/32 inches. Base is 8-1/2 inches long by 2-1/4 inches wide. For determining accuracy of a surface, spindle, arbor, etc., and for obtaining comparative measurements on close work. Knurled nut at top of upright conveniently clamps it to base. Horizontal arm is adjustable to any angle, can be removed and used independently as in lathe tool post. Lever style clamps permit quick, positive adjustments. With tool post clamp and slide support rod. In metal case.

Mfrs. 730 .....LIST EACH, \$30.00

## BROWN & SHARPE UNIVERSAL DIAL INDICATOR SET

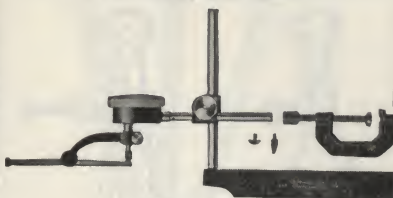


Fig. 4249

Mfrs. 740. Spindle movement 3/10 of an inch by thousandths of an inch. Diameter of dial is 1 1/4 inches. Can be adjusted into almost any position. Its compactness allows its use in places inaccessible to ordinary indicator. Measures by thousandths of an inch inaccuracies in cylindrical or plane surfaces and also detects deviations from parallelism such as between work and machine. Consists of dial indicator with hole attachment, bar with upright rod, clamp, slide with indicator rod and three chromium plated contact points. A convenient feature is the adjustable dial. By turning knurled rim, zero may be brought into any position in relation to the hand.

Set Complete .....LIST EACH, \$16.00  
Indicator only, with 3 contact points .....LIST EACH, \$12.00  
Hole Attachment .....LIST EACH, \$1.75  
Clamp .....LIST EACH, \$.90  
Bar with Upright .....LIST EACH, \$0.90  
Dial Holding Rod .....LIST EACH, \$0.50  
Sliding Swivel .....LIST EACH, \$0.90  
Contact Points .....LIST EACH, \$0.20

## BROWN & SHARPE DIAL GAGE

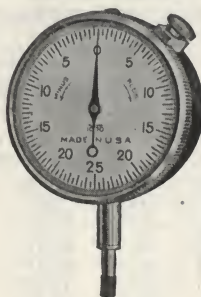


Fig. 4881

Spindle movement is 3/10 inch by half-thousandths of an inch. For dial test indicators and used on special attachments for testing purposes on machine or bench work. Stainless steel gears, pinions, screws and racks. Exposed parts are chromium plated or enameled. White enamel dial face can be turned to zero. Bezel clamp permits clamping dial in any desired position. Graduations are widely spaced and fractional parts of half thousandths are readily estimated. Lug on back with 3/16 inch hole. Dial is 2-7/32 inches in diameter.

Mfrs. 726 .....LIST EACH, \$12.50

Fig. 4882

Has jeweled bearings. Spindle movement is .020 inch by ten-thousandths as well as thousandths of an inch. For use where inspection, testing, etc., are held to very close limits.

Mfrs. 726A .....LIST EACH, \$37.50

## STARRETT UNIVERSAL TEST INDICATOR

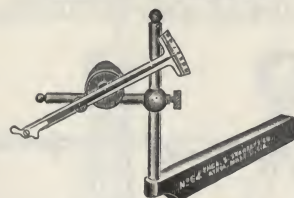


Fig. 4335. Mfrs. 64

Used to test inside, outside or surface work. Instantly attached to spindle or scriber of any surface gauge. Shows slightest variation either way in thousandths. Clamps to any support up to 3/4 inch, flat or round. Holder fits in tool post of a lathe. Shows accuracy of lathe work, turning, chucking, or locating and centering work on face plate. Adapted to truing up tool-makers buttons. Needle head has three working points, equally distant from its fulcrum, so the needle will vibrate, reading in thousandths, when work is in contact with either point—, in front, above or below it. Working parts of the head are hardened. Scale is graduated to read .015 inches on each side of 0. Complete with tool-post holder and arm.

Mfrs. 64A Complete .....LIST EACH, \$4.25  
64B Indicator Only .....LIST EACH, 3.00

## STARRETT UNIVERSAL DIAL TEST INDICATOR

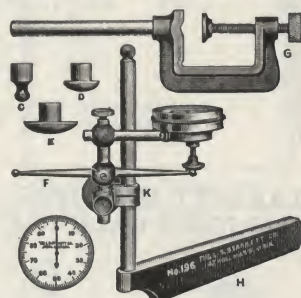


Fig. 4883

For testing any exterior or plain surface. By bringing the contact point against the work with just enough pressure to give the hand one full turn, then setting it at 0, one full revolution of the hand to both right and left of 0, shows a rise or drop in the work and the amount of variation. By turning the knurled rim the dial may be instantly moved to bring the 0 mark to any point desired in relation to the hand. Three hardened contact points for different classes of work. The special tool post holder and sleeve are useful in lathe work. Parts can be furnished.

Mfrs. 196A LIST COMPLETE, \$13.50

## PRECISION TOOL CATALOGS

Promptly on your request we will mail any of the following large complete catalogs:

Brown & Sharpe 'SMALL PRECISION TOOL' Catalog;  
Starrett 'FINE MECHANICAL TOOL' Catalog;  
Lufkin 'GENERAL CATALOG';  
Taft-Peirce 'CATALOG';  
Slocumb 'CATALOG'.

**DISCOUNT**

**10% OFF**



# STARRETT HIGH SPEED INDICATOR

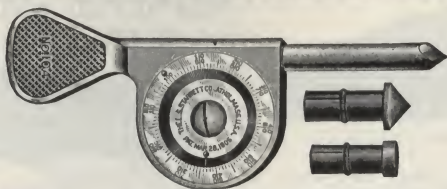


Fig. 4884. Mfrs. 104

This indicator may be run at high speed without heating, and this on account of our frictionless bearing against which the inner end of the spindle revolves. The working parts of this instrument are encased, and the dial plate has two rows of figures, reading right or left, as the shaft may run.

An improvement in this indicator consists of the rotating disc, which, being carried by friction, may be moved to the starting point where the raised knobs coincide. When the spindle is placed in connection with the revolving shaft, pressing the raised knob with the thumb will prevent the disc from rotating, while the hand of the watch gets to the right position to take the time. By releasing the pressure the disc is liberated for counting the revolutions of the shaft when every 100 may be noted by feeling the knob pass under the thumb lightly pressed against it, thus relieving the eye which has only to look on the watch to note the time. This tool is nickel plated.

★ **NET EACH, \$1.10**

With Leather Case .....★ **NET EACH, \$2.35**  
With Spindle 7-1/2 Inches Long .....★ **NET EACH, \$1.75**  
**FIG. 4884B.** Registers speed up to 5000 revolutions.  
Hard rubber handle. Mfrs. 107.....★ **NET EACH, \$3.25**

## BROWN & SHARPE VEST POCKET SPEED INDICATOR

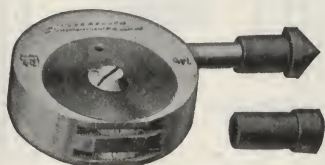


Fig. 4250

Mfrs. 746. Useful for checking the speeds of shafting, wheels, etc. Easy to use. Fits in a vest pocket. Gives readings under 100 direct. For revolutions over 100 the steel plate lifts beneath the thumb as if breathing at every 100 revolutions. With two points.

LIST EACH, \$1.50

Extra Points .....List Each, \$0.15

**DISCOUNT .....10% OFF**

## VEEDER CLUTCH SPEED COUNTER



Fig. 2732. Mfrs. 21

For counting revolutions of shafts, and other revolving parts. Place tip lightly against center of revolving shaft; press lightly—use second hand of any watch—counting will begin. At end of one minute release pressure and counting stops instantly as the recording mechanism is disengaged by a spring clutch. Difference between first and last readings is Revolutions Per Minute. Registers up to 9,999 and repeats. Two rubber tips.

★ **NET EACH, \$3.50**

Extra Rubber Tips.★**Net Each, \$0.25**

## BROWN & SHARPE V BLOCKS AND CLAMP

For holding circular and shaped pieces to be ground, drilled, or milled.

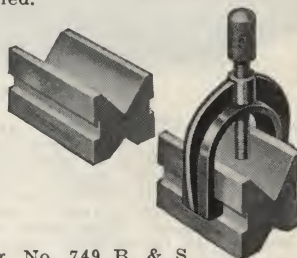


Fig. No. 749 B. & S.

Cast iron blocks 2 by 1-1/2 by 1-1/2 inches. Takes work up to 1-1/2 inch diameter.

Packed two blocks and one clamp in box...List per set of 3 pcs., \$1.85  
Extra clamps .....List Each, .60

### PAIRED BLOCKS AND 2 CLAMPS

Mfrs. 750A. Accurate, hardened tool steel blocks. Sides are ground parallel. V grooves ground central and parallel to bottoms and sides. Numbered pairs only, cannot be mated later.

1-1/4 by 1-1/4 by 1-5/8 inches. Takes work up to 1 inch diameter. LIST, 2 Blocks, 2 Clamps .....\$6.75

**DISCOUNT .....10% OFF**

## BROWN & SHARPE TOOLMAKERS' CLAMPS



Fig. 4259

Designed to insure greatest strength and rigidity. Rounded jaws allow clamping under shoulder or in recess. Spring attachment holds "loose" jaw and prevents its dropping or sliding.

Mfrs. No.	Jaw Opening Inches	Jaw Length Inches	LIST EACH
754A	5/8	1 1/2	\$0.70
754B	1	2 1/2	\$.85
754C	1 1/2	2 3/4	\$1.00
754D	2	3 3/4	\$1.20
754E	2 1/2	4	\$1.50
754F	3 1/2	5	\$2.30

**DISCOUNT .....10% OFF**

## STARRETT 'LAST WORD' TEST INDICATORS



Fig. 4885. Mfrs. 711-F

MODEL F. Illustration is half actual size. Weight, 1-1/4 ounces. Ratchet joint contact point. Reversible action. Range .030 inches. Complete with clamping attachment and case.

★ **NET EACH**

Shank .....\$18.00

Universal .....\$16.50

Gooseneck .....\$17.50

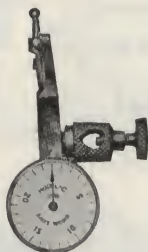


Fig. 4886. Mfrs. 711-C

MODEL C. Illustration is half actual size. Range is .025 inches. Adjustable dial. Complete with attaching attachment and case.

★ **NET EACH**

Shank .....\$14.00

None .....\$15.00

Gooseneck .....\$15.50



Fig. 4887 Mfrs. 711D-10

MODEL D-10. READS IN TEN THOUSANDTHS. Illustration is half actual size. Fixed contact point. Adjustable dial. Range is .024 inches. Complete with clamping attachment and case.

★ **NET EACH**

Shank .....\$35.00

Gooseneck .....\$35.50

Universal .....\$35.50

## BROWN & SHARPE TOOLMAKERS' BUTTONS



Fig. 4253

For precision work where positive accuracy is required to locate holes. Carefully made. Ends are ground square with the sides. Extra long button in each set permitting them to be used unusually close together. Made in sets of four buttons of the same diameter, three buttons are 3/4 inches long and one is 1/2 inches long. Buttons are fastened to a steel base which is thick enough to protect the ends of the screws that hold them to the base.

Mfrs. No.	Diameter Inches	LIST SET
758A	.300	\$3.50
758B	.400	\$3.50
758C	.500	\$3.50

Tap 1/8 inch—40.....List Each, \$0.35

**DISCOUNT .....10% OFF**



**BROWN & SHARPE GROUND FLAT STOCK**

Fig. 4888

Ground Flat Stock saves time and money when high grade tool steel is needed for templates, dies, gages, machine parts, or other purposes. Accurately ground to .001 inch on special equipment, it saves users slow and costly flat grinding operations which frequently cause distortion and overheating. Specially selected, first quality tool steel with carbon per cent 1.20-1.30, annealed so that it may be readily machined. It will harden the same as any first quality tool steel. Each piece is marked with its size. Special sizes and thicknesses can be furnished at reasonable prices.

Width Inch	Length Inch	★NET PIECE	Width Inch	Length Inch	★NET PIECE	Width Inch	Length Inch	★NET PIECE
<b>1/64 INCH</b>			<b>3/32 INCH</b>			<b>7/32 INCH</b>		
1	18	\$0.85	2	18	\$1.00	2-1/2	18	\$1.90
1-1/2	18	\$1.05	2-1/2	18	\$1.20	3	18	\$2.20
2	18	\$1.25	3	18	\$1.40	4	18	\$3.00
2-1/2	18	\$1.55	3-1/2	18	\$1.65	<b>1/4 INCH</b>		
3	18	\$1.85	4	18	\$1.90	1/4	18	\$1.00
4	18	\$2.50	5	18	\$2.75	1/2	18	\$0.95
<b>1/32 INCH</b>			6	18	\$3.75	1	18	\$1.15
3/4	18	\$0.60	<b>1/8 INCH</b>			1-1/2	18	\$1.45
1	18	\$0.60	1/2	18	\$0.60	2	18	\$1.80
1-1/2	18	\$0.80	3/4	18	\$0.70	2-1/2	18	\$2.20
2	18	\$1.00	1	18	\$0.75	3	18	\$2.60
2-1/2	18	\$1.25	1-1/4	18	\$0.85	3-1/2	18	\$3.05
3	18	\$1.50	1-1/2	18	\$0.90	4	18	\$3.50
3-1/2	18	\$1.75	2	18	\$1.05	5	18	\$4.50
4	18	\$2.00	2-1/2	18	\$1.30	6	18	\$5.50
5	18	\$3.00	3	18	\$1.50	<b>5/16 INCH</b>		
6	18	\$4.00	3-1/2	18	\$1.75	5/16	18	\$1.25
<b>3/64 INCH</b>			4	18	\$2.00	1/2	18	\$1.20
1	18	\$0.55	5	18	\$2.85	1	18	\$1.50
1-1/2	18	\$0.75	6	18	\$4.00	1-1/2	18	\$1.80
2	18	\$0.95	<b>5/32 INCH</b>			2	18	\$2.15
2-1/2	18	\$1.15	3/4	18	\$0.75	2-1/2	18	\$2.60
3	18	\$1.40	1	18	\$0.85	3	18	\$3.05
3-1/2	18	\$1.90	1-1/2	18	\$1.10	4	18	\$4.00
4	18	\$2.75	2	18	\$1.40	<b>3/8 INCH</b>		
5	18	\$3.75	2-1/2	18	\$1.60	3/8	18	\$1.50
<b>1/16 INCH</b>			3	18	\$1.80	1/2	18	\$1.50
1/2	18	\$0.40	4	18	\$2.30	3/4	18	\$1.65
3/4	18	\$0.45	<b>3/16 INCH</b>			1	18	\$1.75
1	18	\$0.50	1/2	18	\$0.75	1-1/2	18	\$2.05
1-1/4	18	\$0.65	3/4	18	\$0.90	2	18	\$2.40
1-1/2	18	\$0.70	1	18	\$0.95	2-1/2	18	\$2.95
2	18	\$0.90	1-1/4	18	\$1.15	3	18	\$3.50
2-1/2	18	\$1.10	1-1/2	18	\$1.20	4	18	\$4.50
3	18	\$1.35	2	18	\$1.50	<b>1/2 INCH</b>		
3-1/2	18	\$1.60	2-1/2	18	\$1.70	1/2	18	\$1.75
4	18	\$1.85	3	18	\$2.00	3/4	18	\$2.15
5	18	\$2.50	3-1/2	18	\$2.30	1	18	\$2.65
6	18	\$3.50	4	18	\$2.60	2	18	\$3.30
<b>3/32 INCH</b>			5	18	\$3.50	3	18	\$4.40
1/2	18	\$0.55	6	18	\$4.50	4	18	\$5.40
3/4	18	\$0.65	<b>7/32 INCH</b>			<b>3/4 INCH</b>		
1	18	\$0.70	1	18	\$1.05	3/4	18	\$2.50
1-1/2	18	\$0.85	1-1/2	18	\$1.35	<b>1 INCH</b>		
			2	18	\$1.60	1	18	\$3.25

**TAFT-PEIRCE  
HARDENED AND GROUND  
STEEL PARALLELS**

Fig. 4843

Size Inch	★ NET EACH
5/16 x 1/4 x 5	\$2.50
3/8 x 1/4 x 5	\$2.50
3/8 x 5/16 x 5	\$2.50
7/16 x 1/4 x 5	\$2.50
7/16 x 3/8 x 5	\$2.50
1/2 x 1/4 x 5	\$2.50
1/2 x 5/16 x 5	\$2.50
1/2 x 3/8 x 5	\$2.50
5/8 x 1/4 x 6	\$2.75
5/8 x 5/16 x 6	\$2.75
11/16 x 9/16 x 6	\$2.75
3/4 x 3/8 x 6	\$2.75
3/4 x 7/16 x 6	\$3.00
3/4 x 1/2 x 6	\$3.00
13/16 x 1/4 x 6	\$3.00
3/16 x 5/16 x 6	\$3.00
13/16 x 3/8 x 6	\$3.00
7/8 x 1/4 x 6	\$3.25
7/8 x 7/16 x 6	\$3.25
7/8 x 5/8 x 6	\$3.25
1 x 1/4 x 6	\$3.25
1 x 5/16 x 6	\$3.50
1 x 1/2 x 6	\$3.50
1-1/8 x 5/16 x 6	\$3.50
1-1/8 x 1/2 x 6	\$3.75
1-1/8 x 5/8 x 6	\$3.75
1-1/8 x 3/4 x 6	\$3.75
1-1/4 x 3/8 x 8	\$4.50
1-1/4 x 1/2 x 8	\$4.50
1-1/4 x 5/8 x 8	\$4.50
1-1/2 x 5/8 x 8	\$5.25
1-1/2 x 3/4 x 8	\$5.25
1-1/2 x 1-1/4 x 12	\$7.25
1-3/4 x 7/8 x 12	\$7.25
2 x 1 x 12	\$7.50
2-1/4 x 1-1/8 x 12	\$8.75
2-1/2 x 1-1/4 x 12	\$10.00
2-3/4 x 1-3/8 x 12	\$11.25
3 x 1-1/2 x 12	\$12.50

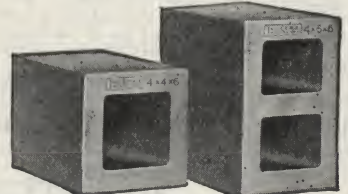
**TAFT-PEIRCE  
BOX PARALLELS**

Fig. 4844

Made of seasoned cast iron.

Length Inch	Width Inch	Height Inch	Weight Pounds	★ NET EACH
6	4	4	15	\$13.00
12	4	6	20	\$23.00
16	5	8	70	\$40.00
	6	14	120	\$80.00

**TAFT-PEIRCE TOOLMAKERS KNEE**

Fig. 4845

Made of seasoned cast iron. 2-1/2 inches long, 4 inches wide, 3 inches high. Weight, 4 pounds.

★ NET EACH, \$6.00

**TAFT-PEIRCE  
SLOTTED ANGLE IRONS**

Fig. 4846

Made of seasoned cast iron.

First Angle Inches	Width Inches	Second Angle Inches	Weight Pounds	★ NET EACH
4	5	5-1/2	10	\$10.50
6	6	8	20	\$21.00
4	9	5	16	\$21.00
8	10	12	60	\$42.50
5	12	6	30	\$30.00
9	12	10	65	\$47.50

**TAFT-PEIRCE UNIVERSAL  
RIGHT ANGLE IRONS**

Fig. 4847

Made of seasoned cast iron.

First Angle Inch	Width Inch	Second Angle Inch	Weight Pounds	★ NET EACH
4	3-3/4	5	7	\$15.00
5	4-1/2	8	17	\$20.00
7	5-1/2	10	35	\$30.00
9	8	16	75	\$50.00

**TAFT-PEIRCE  
BENCH BLOCK**

Fig. 4848

Top and bottom surfaces are both accurately ground. Seasoned cast iron. 10 inches wide, 14 inches long, 2-3/8 inches high. Weight, 40 pounds.

★ NET EACH, \$14.50



**TAFT-PEIRCE  
CYLINDRICAL PLUG GAGES**

For checking internal diameters. American Gage Design. Larger sizes; quantity prices; extra long members; and progressive members; chromium plated members; X and Y Tolerances; prices on request.



Fig. 4836

**GO MEMBERS  
AND HANDLES**

Size Range Inches	Length Gaging Section	List Go Member	LIST HANDLE
<b>Z TOLERANCES—.00010</b>			
.029-.040	3/8	\$6.60	\$1.50
.040-.059	3/8	\$6.00	\$1.50
.059-.105	3/8	\$5.40	\$1.50
.105-.150	7/16	\$5.10	\$1.50
.150-.240	19/32	\$4.80	\$1.50
.240-.365	3/4	\$4.80	\$1.20
.365-.510	1	\$4.80	\$1.20
.510-.825	1-1/4	\$5.40	\$1.20
<b>Z TOLERANCES—.00012</b>			
.825-1.135	1-3/8	\$6.30	\$1.50
1.135-1.510	1-1/2	\$7.20	\$1.80

DISCOUNT .....40% OFF



Fig. 4837

**NOT GO  
MEMBERS AND HANDLES**

Size Range Inches	Length Gaging Section	List Not Go Member	LIST HANDLE
<b>Z TOLERANCES—.00010</b>			
.029-.040	3/16	\$5.90	\$1.50
.040-.059	3/16	\$5.40	\$1.50
.059-.105	3/16	\$4.90	\$1.50
.105-.150	7/32	\$4.60	\$1.50
.150-.240	9/32	\$4.30	\$1.50
.240-.365	5/16	\$4.30	\$1.20
.365-.510	3/8	\$4.30	\$1.20
.510-.825	1/2	\$4.90	\$1.20
<b>Z TOLERANCES—.00012</b>			
.825-1.135	5/8	\$5.70	\$1.50
1.135-1.510	3/4	\$6.50	\$1.80

DISCOUNT .....40% OFF



Fig. 4838

COMPLETE WITH GO AND NOT GO MEMBERS AND HANDLE.

Size Range Inches	Length Go Member	Length Not Go Member	LIST Complete
<b>Z TOLERANCES—.00010</b>			
.029-.040	3/8	3/16	\$14.00
.040-.059	3/8	3/16	\$12.90
.059-.105	3/8	3/16	\$11.80
.105-.150	7/16	7/32	\$11.20
.150-.240	19/32	9/32	\$10.60
.240-.365	3/4	5/16	\$10.30
.365-.510	1	3/8	\$10.30
.510-.825	1-1/4	1/2	\$11.50
<b>Z TOLERANCES—.00012</b>			
.825-1.135	1-3/8	5/8	\$13.50
1.135-1.510	1-1/2	3/4	\$15.50

DISCOUNT .....40% OFF

**TAFT-PEIRCE THREAD PLUG GAGES**



Fig. 4839

National Coarse, National Fine, and National Special Threads. Used for checking internal threads. American Gage Design.

Size	N C Thread	N F Thread	N S Thread	Go Members Basic Size	Not go Members Class 2 or 3	Go or not go Members of any other Pitch Diam.	Handles
4	40	48		\$10.20	\$10.20	\$13.30	\$1.50
4			36	\$10.20		\$13.30	\$11.5
5	40	44		\$9.30	\$9.30	\$12.10	\$5.00
6	32	40		\$9.30	\$9.30	\$12.10	\$1.50
8	32	36		\$9.30	\$9.30	\$12.10	\$1.50
10	24	32		\$9.30	\$9.30	\$12.10	\$1.50
10			30	\$9.30		\$12.10	\$1.50
12	24	28		\$9.30	\$9.30	\$12.10	\$1.50
14			20-24	\$9.30		\$12.10	\$1.20
1/4	20	28		\$7.80	\$7.80	\$10.00	\$1.20
5/16	18	24		\$7.80	\$7.80	\$10.00	\$1.20
3/8	16	24		\$8.40	\$8.40	\$10.90	\$1.20
7/16	14	20		\$8.40	\$8.40	\$10.90	\$1.20
1/2	13	20		\$9.00	\$9.00	\$11.80	\$1.20
9/16	12	18		\$10.00	\$10.00	\$13.00	\$1.20
5/8	11	18		\$10.00	\$10.00	\$13.00	\$1.20
11/16			11-16	\$11.20		\$14.50	\$1.20
3/4	10	16		\$11.20	\$11.20	\$14.50	\$1.20
7/8	9	14		\$12.10	\$12.10	\$16.00	\$1.50
7/8			18	\$12.10		\$16.00	\$1.50
1	8	14		\$13.50	\$13.50	\$17.50	\$1.50
1-1/8	7	12		\$15.50		\$20.00	\$1.50
1-1/4	7	12		\$17.20		\$22.50	\$1.80
1-3/8	6	12		\$19.20		\$25.00	\$1.80
1-1/2	6	12		\$21.20		\$27.50	\$1.80

DISCOUNT .....25% OFF

**TAFT-PEIRCE  
THREAD RING GAGES**

Fig. 4840

National Coarse, National Fine, and National Special Threads. For checking external threads. American Gage Design.



Size	N C Thread	N F Thread	N S Thread	Go Rings Basic Size	Not Go Rings Class 2 or 3
4	40	48		\$11.70	\$15.60
4			36	\$11.70	
5	40	44		\$10.80	\$14.40
6	32	40		\$10.80	\$14.40
8	32	36		\$10.80	\$14.40
10	24	32		\$10.80	\$14.40
10			30	\$10.80	
12	24	28		\$10.80	\$14.40
14			20-24	\$10.80	
1/4	20	28		\$9.00	\$12.00
5/16	18	24		\$9.00	\$12.00
3/8	16	24		\$9.60	\$12.80
7/16	14	20		\$9.60	\$12.80
1/2	13	20		\$10.20	\$13.60
9/16	12	18		\$11.20	\$15.00
5/8	11	18		\$11.20	\$15.00
11/16			11-16	\$12.40	
3/4	10	16		\$12.40	\$16.50
7/8	9	14		\$13.60	\$18.00
7/8			18	\$13.60	
1	8	14		\$15.00	\$20.00
1-1/8	7	12		\$17.00	\$22.50
1-1/4	7	12		\$19.00	\$25.00
1-3/8	6	12		\$21.00	\$28.00
1-1/2	6	12		\$23.00	\$31.00

DISCOUNT .....20% OFF

**AMERICAN NATIONAL TAPER PIPE THREAD GAGES**



Fig. 4841

N. S. T. C. and A. S. A. Standard Tolerances. The plug is for checking internal pipe threads. The ring is for checking external pipe threads. American Gage Design.

Size And Pitch	Plug Gage Member	Handle	Ring Gage
1/8-27	\$11.40	\$1.20	\$12.60
1/4-18	\$13.50	\$1.20	\$14.70
3/8-18	\$15.90	\$1.20	\$17.10
1/2-14	\$18.00	\$1.50	\$19.50
3/4-14	\$20.50	\$1.50	\$22.00
1 -11-1/2	\$22.50	\$1.80	\$24.30
1-1/4-11-1/2	\$25.20	\$1.80	\$27.00
1-1/2-11-1/2	\$28.80	\$1.80	\$30.60
2 -11-1/2	\$34.20	\$1.80	\$36.00
2-1/2-8	\$40.00	\$3.00	\$43.00
3 -8	\$48.00	\$3.00	\$51.00

**DISCOUNTS**

Plugs and Handles .....25% OFF  
Ring Gages .....20% OFF



TAFT-PEIRCE ADJUSTABLE  
LIMIT SNAP GAGES



Fig. 4849

American Gage Design. For checking external dimensions.

Size No.	Range Inches	LIST EACH
1	0 - 1/4	\$10.80
2A	1/4- 1/2	\$11.50
2B	1/2- 3/4	\$11.50
3A	3/4-1	\$12.00
3B	1 -1-1/4	\$12.00
4A	1-1/4-1-1/2	\$12.50
4B	1-1/2-1-3/4	\$12.50
5A	1-3/4-2	\$13.50
5B	2 -2-1/4	\$13.50
6A	2-1/4-2-1/2	\$14.00
6B	2-1/2-2-3/4	\$14.00
7A	2-3/4-3-1/16	\$15.00
7B	3-1/16-3-7/16	\$15.00
8A	3-7/16-3-13/16	\$16.00
8B	3-13/16-4-3/16	\$16.00
9A	4-3/16-4-9/16	\$17.00
9B	4-9/16-4-15/16	\$17.00
10A	4-15/16-5-5/16	\$19.00
10B	5-5/16-5-11/16	\$19.00
11A	5-11/16-6-1/8	\$21.00
11B	6-1/8-6-5/8	\$21.00

Set and Sealed .....25% OFF

Not Set, Sealed or

Marked .....25-10% OFF

STARRETT IGNITION  
SPACING GAGE

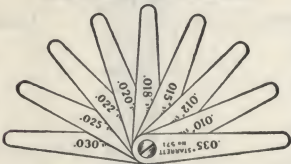


Fig. 4889. Mfrs. 571

An accurate, properly formed, marked and finished gage for ignition spacing and distributor work. Nine tapered, hardened, leaves with the following thicknesses: .010, .012, .015, .018, .020, .022, .025, .030 and .035. 2-1/16 inches long. Large end is 3/8 inch. Small end is 3/16 inch. LIST EACH .....\$1.25 DISCOUNT .....10% OFF

STARRETT  
THICKNESS GAGE



Fig. 4890. Mfrs. 78

Six leaves in the following thicknesses: .0015, .002, .003, .004, .006, and .015 inches. Leaves may be removed giving a range by thousandths up to .031. Case protects all leaves from bad bends. Eyelet to carry on ring.

LIST EACH .....\$0.50

DISCOUNT .....10% OFF

BROWN & SHARPE  
THICKNESS GAGES



Fig. 4245

Mfrs. 640. Has 22 blades varying in thickness from .004 to .025 of an inch by thousandths of an inch. Blades are 2 1/8 inches long by 1/8 inches wide and are tempered. List Each, \$2.50

Mfrs. 642. Has 9 blades of following thicknesses: .0015, .002, .003, .004, .006, .008, .010, .012, and .015 of an inch. Tempered blades. List Each, \$1.50

Mfrs. 646. 6 blades of the following thicknesses: .0015, .002, .003, .004, .006 and .015 of an inch. Blades are 2 1/8 inches long and 1/8 inches wide and are tempered. List Each, \$0.90

DISCOUNT .....10% OFF

BROWN & SHARPE  
THICKNESS GAGE

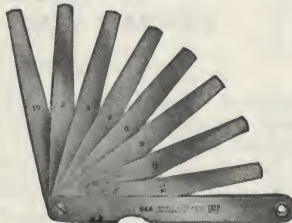


Fig. No. 648 B. & S.

This gauge contains 8 tapered blades, tempered and accurately ground to size. The blades are 4 1/2 in. long and 1/2 in. wide at the heel. The taper on the end of the blade is 2 1/4 in. long and narrows down to 1/4 in. in width on the end.

The blades are of the following thicknesses: .002 in., .003 in., .004 in., .006 in., .008 in., .010 in., .012 in. and .015 in.

Each in box.....List Each \$2.50

DISCOUNT .....10% OFF

STARRETT  
THICKNESS GAGE



No. S-172A

This gauge has nine leaves: .0015, .002, .003, .004, .006, .008, .010, .012 and .015.

The leaves are 3 1/4 in. long by 1/2 in. wide, are tempered and have the thickness marked upon them. Case is 3 3/4 in. long by 1/2 in. wide.

Made also with tapering leaves. Sent with straight leaves as shown, unless otherwise ordered.

List Each, \$1.50

DISCOUNT .....10% OFF

FEELER STOCK

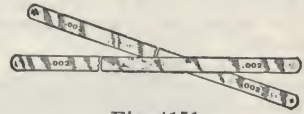


Fig. 4151

"Universal." Rounded ends. Nipped edges. 12 inch pieces, each in individual envelopes.

Thick-ness	LIST FOOT	Thick-ness	LIST FOOT
.0015	\$0.34	.008	\$0.34
.002	\$0.34	.010	\$0.34
.003	\$0.34	.012	\$0.34
.004	\$0.24	.015	\$0.34
.006	\$0.24		

DISCOUNT .....10% OFF

BROWN & SHARPE  
FILLET & RADIUS GAGES

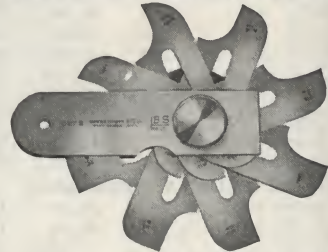


Fig. 4247

8 long, sliding, double ended blades. Concave and convex radii of the same size on the same blade. Easy to use and to handle. Desired size is found quickly. Practically all blades can be extended at one time. Blades are hard rolled steel and can be clamped securely. Light and strong. For checking fillets and radii in corners or against shoulders.

Mfrs. No.	Radii Size Inches	LIST EACH
627A	1/2 to 1 1/4 by 64ths	\$1.50
627B	1/2 to 3/4 by 64ths	\$2.00

DISCOUNT .....10% OFF

LUFKIN RADIUS GAGES

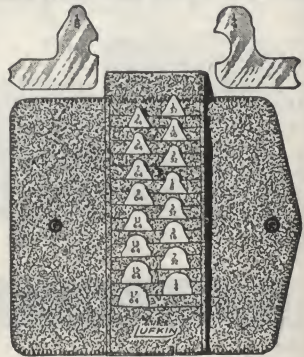


Fig. 4891

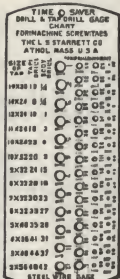
Used to determine the radius of inside corners or fillets of one fourth or less of a circle. Straight sides of gage are at 90 degrees and can be used for checking location of radius. Used for determining the radius of outside corners. Check convex parts where radius is one fourth or more of circle. Can be used on concave of one-half or less of circle. Checks one-half of a circumference. It also has many other uses. Sets only, with leatherette folder.

Mfrs. No.	Radii Set Gages	Inches	By EACH	LIST
77A	16	1/32 to 17/64	64ths	\$4.00
77B	8	9/32 to 1/2	32nds	\$2.50
77C	24	1/32 to 17/64	64ths	\$6.50
77D	16	1/32 to 1/2	32nds	\$4.50
....	1	1/32 to 17/64	64ths	\$0.40
....	1	9/32 to 1/2	32nds	\$0.40
20	Holder Only			\$0.70

DISCOUNT .....10% OFF



# **STARRETT TIME SAVER DRILL, TAP, AND STEEL WIRE GAGE** No. 1 to 60



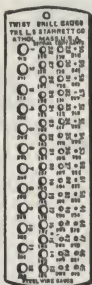
This gage is approximately  $\frac{3}{16}$  inch thick,  $2\frac{1}{16}$  inches wide and  $6\frac{1}{4}$  inches long. It is hardened, ground and rubbed to a bright finish and is thoroughly tested after hardening.

By the use of this gage one is enabled to select at once the right sized drill to suit machine screw tap most commonly used, leaving just stock enough for the tap to cut as near a full thread as is practicable for one tap without breaking it.

List Each, \$2.40

No. 185-S

# **STARRETT DRILL AND STEEL WIRE GAGE** No. 1 to 60



No. 186-S

This gage gives the number of drill to fit each hole, and the size of the hole in thousandths of an inch. This gage is about  $\frac{3}{16}$  inch thick,  $1\frac{1}{2}$  inches wide, and  $5\frac{1}{2}$  inches long. It is hardened, ground and rubbed to a bright finish and is thoroughly tested after hardening.

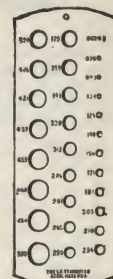
List Each, \$2.00

# **STARRETT JOBBER'S' DRILL GAGE** 1/16 TO 1/2 BY 64THS For Gaging Twist Drills

No. 187-S

This gage shows sizes from  $\frac{1}{16}$  inch to  $\frac{1}{2}$  inch, varying by 64ths, and is about  $\frac{3}{16}$  inch thick,  $2\frac{1}{16}$  inches wide,  $6\frac{1}{4}$  inches long. It is hardened, ground and rubbed to a bright finish and is thoroughly tested after hardening.

List Each, \$2.75



# **STARRETT ENGLISH STANDARD WIRE GAGES** Birmingham or Stub's'



No. 188-S and No. 189-S

This gage has black finish and the decimal equivalents of each number are stamped on the back.

Each gage tested carefully after hardening.

No. of Wire Gage	Decimal Equivalent, Inches	No. of Wire Gage	Decimal Equivalent, Inches	No. of Wire Gage	Decimal Equivalent, Inches
0000	.454	11	.120	25	.020
000	.425	12	.109	26	.018
00	.380	13	.095	27	.016
0	.340	14	.083	28	.014
1	.300	15	.072	29	.013
2	.284	16	.065	30	.012
3	.259	17	.058	31	.010
4	.238	18	.049	32	.009
5	.220	19	.042	33	.008
6	.203	20	.035	34	.007
7	.180	21	.032	35	.005
8	.165	22	.028	36	.004
9	.148	23	.025		
10	.134	24	.022		

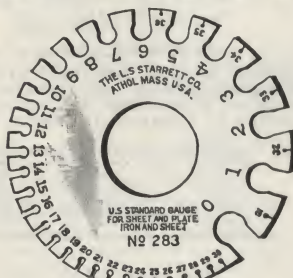
No. 188-S Numbers 1 to 36.

List Each, \$3.00

No. 189-S Numbers 6 to 36.

List Each, 2.50

# **STARRETT U. S. STANDARD SHEET METAL GAGE**



No. 283-S

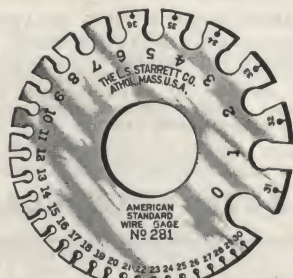
This gage takes in sizes from No. 0 to No. 36. The gage numbers are those of the U. S. Standard Gage for sheet and plate iron and steel, adopted by Congress, March 3, 1893.

The decimal equivalents of each number are stamped on the back.

Each gage has black finish and is carefully tested after hardening. No. 283-S Numbers 0 to 36. Diam.  $3\frac{1}{4}$  in.,  $\frac{1}{8}$  in. thick.

List Each, \$3.00

# **STARRETT AMERICAN STANDARD WIRE GAGES**



No. 281-S and No. 282-S

Adopted by the brass manufacturers in January, 1858.

Each gage has black finish and is carefully tested after hardening. The decimal equivalents of each number are stamped on the back.

No. 281-S Numbers 0 to 36.

List Each, \$3.00

No. 282-S Numbers 5 to 36.

List Each, 2.50

# **BROWN & SHARPE SCREW PITCH GAGE**



Fig. 4246

V Threads. 30 pitches, 4 to 42. Shape of blades adapts them for threads of nuts as well as of screws. Quick selection of blades. Contains 30 blades with following threads to the inch: 4,  $4\frac{1}{2}$ , 5,  $5\frac{1}{2}$ , 6, 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14 and 15 on one end and 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40 and 42 on the other end.

Mfrs. 632.....List Each, \$1.75

# **STARRETT IMPROVED SCREW PITCH GAGE**



No. 40-S

This gauge has twenty-two pitches: 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40.

Can be used inside a nut as well as on the outside of a screw or bolt.

A late improvement consists in stamping on each leaf, decimals showing the double depth of thread on said leaf, and this of course on said leaf.

List Each, \$1.25

# **STARRETT SCREW PITCH GAGES**

V thread, 24 pitches: 4,  $4\frac{1}{2}$ , 5,  $5\frac{1}{2}$ , 6, 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28 and 30. Sharp clean cut teeth. Can be used inside a nut or on the outside of a screw or bolt. Can be used as a 60 degree center gage and gage to test the grinding of either an inside or outside threading tool.

LIST EACH .....\$1.50

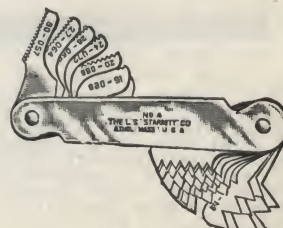


Fig. 4910. Mfrs. 4

**DISCOUNT**

**10% OFF**



## BROWN & SHARPE TEMPERED STEEL RULES

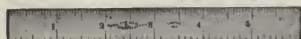


Fig. 4254

Mfrs. 300. Rules are about  $\frac{1}{20}$ th of an inch thick. The 48 inch is about  $\frac{1}{10}$ th of an inch thick and is not tempered. Graduation on edges on both sides and ends on one side.

Length Inches	Approximate Width, Inches	LIST EACH
1	$\frac{29}{64}$	\$0.30
2	$\frac{1}{2}$	.45
3	$\frac{39}{64}$	.60
4	$\frac{19}{32}$	.75
6	$\frac{11}{16}$	.90
9	$\frac{53}{64}$	\$1.35
12	$\frac{21}{32}$	\$1.65
18	1	\$2.60
24	1	\$3.25
36	1	\$7.00
48	$1\frac{1}{2}$	\$10.00

## BROWN & SHARPE TEMPERED STEEL RULES

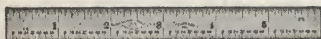


Fig. 4336. Mfrs. 315

With figured 64th graduations numbered every 8th graduation line, as 8, 16, 24, etc. About  $\frac{1}{20}$ th of an inch thick. 2 to 12 inch have two end graduations to 32nds of an inch on one side.

Length, Inches	Width, Inches	List Each
1	$\frac{29}{64}$	\$0.30
2	$\frac{1}{2}$	.45
3	$\frac{39}{64}$	.60
4	$\frac{19}{32}$	.75
6	$\frac{11}{16}$	.90
9	$\frac{53}{64}$	1.35
12	$\frac{21}{32}$	1.65
18	1	2.60
24	1	3.25

## BROWN & SHARPE STAINLESS STEEL RULES

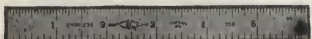


Fig. No. 350 B. &amp; S.

These rules are rustproof, will not stain or discolor, but will always retain their bright finish.

They are tempered and have No. 4 Graduation.

Packed six in a box.

Length, Inches	Width, Inches	List Each
6	$1\frac{1}{16}$	\$1.35
12	$\frac{21}{32}$	2.65

## BROWN & SHARPE 6 INCH FLEXIBLE STAINLESS STEEL RULE

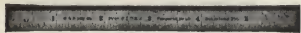


Fig. 4892. Mfrs. 356

Tempered. Easy to read and will remain permanently bright. Stainless Steel will not withstand sharp bends but is sufficiently flexible for all reasonable requirements. 6 inches long,  $\frac{1}{2}$  inches wide. Graduated 32nds and 64ths.

LIST EACH .....\$1.35  
Case .....List Extra, \$0.15

## BROWN & SHARPE FLEXIBLE STEEL RULES

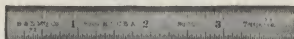


Fig. 4255

Mfrs. 306. Tempered. Very springy. About  $\frac{1}{64}$ th of an inch thick. Graduated on both edges of one side only.

Mfrs. 306A. 6 inch only. With No. 10 figured graduations 32nds and 64ths.

Length Inches	Approximate Width, Inches	LIST EACH
4	$\frac{1}{2}$	\$0.75
6	$\frac{7}{8}$	.90
9	$\frac{7}{8}$	\$1.35
12	$\frac{7}{8}$	\$1.65
18	$\frac{3}{4}$	\$2.60
24	$\frac{3}{4}$	\$3.25

## STARRETT SPRING TEMPERED STEEL RULES



Mfrs. 300S

$\frac{3}{64}$  inch thick. Graduated by 64ths, 32nds, 16ths and 8ths.

Length, Inches	Approximate Width, Inches	List Each
1	$\frac{1}{2}$	\$0.30
2	$\frac{1}{2}$	.45
3	$\frac{1}{2}$	.60
4	$\frac{1}{2}$	.75
6	$\frac{1}{2}$	.90
9	$\frac{1}{2}$	1.35
12	1	1.65
18	$1\frac{1}{8}$	2.60
24	$1\frac{1}{4}$	3.25
36	$1\frac{1}{4}$	7.00
48	$1\frac{1}{4}$	10.00

## STARRETT SPRING TEMPERED STEEL RULES

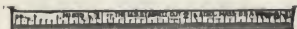


Mfrs. 303S

Graduated in 32nds on opposite sides of one end. Graduated by 64ths, 32nds, 16ths, and 8ths.  $\frac{3}{64}$  inch thick.

Length, Inches	Approximate Width, Inches	List Each
2	$\frac{1}{2}$	\$0.45
3	$\frac{1}{2}$	.60
4	$\frac{1}{2}$	.75
6	$\frac{1}{2}$	.90
9	$\frac{1}{2}$	1.35
12	1	1.65

## STARRETT NARROW STEEL RULES



Mfrs. 330S.

Graduated 32nds and 64ths.

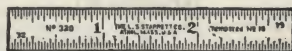
Mfrs. 331S.

Graduated 64ths and 100ths

$\frac{3}{16}$ th inch wide.  $\frac{1}{25}$ ths inch thick. Spring tempered.

Length, Inch..	4	6	9	12
List, Each....	\$0.75	\$0.90	\$1.35	\$1.65

## STARRETT FLEXIBLE STEEL RULES



Mfrs. 320-S

### GRADUATED ONE SIDE

Very thin. Spring-tempered. Graduated one side only in 32nds and 64ths.

Length, Inches	Width, Inches	Thickness, Inches	List Each
1	$\frac{1}{2}$	.012	\$0.30
2	$\frac{1}{2}$	.012	.45
3	$\frac{1}{2}$	.012	.60
4	$\frac{1}{2}$	.012	.75
6	$\frac{1}{2}$	.012	.90
9	$\frac{1}{2}$	.012	1.35
12	$\frac{1}{2}$	.012	1.65
18	$\frac{3}{4}$	.016	2.60
24	$\frac{3}{4}$	.016	3.25
36	$\frac{3}{4}$	.016	7.00
48	$\frac{3}{4}$	.016	10.00

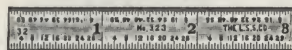


Fig. 4893. Mfrs. 323

### QUICK READING

Quick reading figures. 64th and 32nd graduations. Every 4th graduation of 32nds and 8th graduation of 64ths is numbered. Metal bound pocket case.

LIST EACH .....\$0.90

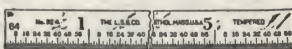


Fig. 4894. Mfrs. 324

### QUICK READING

Quick reading figures. Graduated, 64ths on one side and 32nds on the other side. Graduated on opposite sides and opposite edges and from one end. Metal bound pocket case.

6 Inch .....LIST EACH, \$0.90

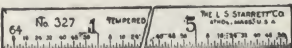


Fig. 5325. Mfrs. 327

### SIMPLIFIED QUICK READING

Graduated in 16ths, 32nds, and 64ths on both sides of the rule from one end. No turning end for end nor measuring with figures upside down. Made from finest quality spring tempered steel.

6 Inch ..... LIST EACH, \$0.90

## BATES STEEL RULE

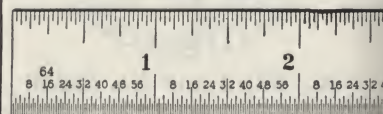


Fig. 4338

6 inch size only. Stiff rule. Graduated, 8ths and 16ths on one side. 32nds and 64ths on other side. With special figuring to enable quick reading on the 64ths.

LIST EACH .....\$0.35

**DISCOUNT ..... 10% OFF**



## BROWN & SHARPE TEMPERED HOOK RULES

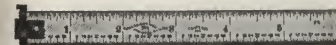


Fig. 4256

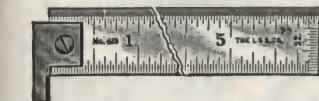
Mfrs. 320. Tempered. With a sliding hook which makes possible accurate measurements against shallow shoulders. Convenient in taking measurements of flanges or circular pieces or through the hubs of pulleys. For setting calipers and dividers and taking measurements from points where the user cannot see if the rule is even with the measuring edge. 4 to 12 inch also have end graduations. Thickness is about 1-20th of an inch.

Length Inches	Approximate Width, Inches	LIST EACH
4	$\frac{19}{32}$	\$1.10
6	$\frac{11}{16}$	\$1.25
8	$\frac{53}{64}$	\$1.75
10	$\frac{31}{32}$	\$2.15
12	1	\$3.10
14	1	\$3.75
16	1	\$7.65

DISCOUNT .....10% OFF

## STARRETT STEEL HOOK RULES

For measuring from points that cannot be seen if rule is even with measuring edge, from round corners, through hubs of pulleys, etc. Removable hook.



Mfrs. 419S. Graduated 64ths, 32nds, 16ths, and 8ths of an inch. Sizes 6, 9 and 12 inch have end graduation.

Length, Inches	Width, Inches	Thickness, Inches	List Each
6	$\frac{3}{4}$	$\frac{3}{64}$	\$1.25
9	$\frac{7}{8}$	$\frac{3}{64}$	1.75
12	1	$\frac{3}{64}$	2.15
14	$1\frac{1}{8}$	$\frac{3}{64}$	3.10
16	$1\frac{1}{4}$	$\frac{3}{64}$	3.75
18	$1\frac{1}{2}$	$\frac{1}{10}$	7.65
24	$1\frac{3}{4}$	$\frac{1}{10}$	10.75

Mfrs. 422S. Narrow. For taking measurements through small holes. Graduated on one side in 32nds and on the other side in 64ths on an inch.

Length, Inches	Width, Inches	Thickness, Inches	List Each
6	$\frac{3}{16}$	$\frac{1}{25}$	\$1.00
9	$\frac{3}{16}$	$\frac{1}{25}$	1.20
12	$\frac{3}{16}$	$\frac{1}{25}$	1.65
18	$\frac{3}{16}$	$\frac{1}{25}$	2.00

DISCOUNT .....10% OFF

## TINNERS STEEL CIRCUMFERENCE RULES



Fig. 4647

For tinner's and other sheet metal workers, etc. Tempered steel,  $1\frac{1}{4}$  by  $\frac{1}{16}$  inch. (16 gauge).

On one side this rule is marked on upper edge in standard measurement inches to 16ths, lower edge circumference inches to 8ths. With it the circumference of any circle is arrived at by simply measuring the diameter. This circumference is obtained at a direct reading, for the circumference markings bear the relation of 3.1416 to standard inches.

Other side of this rule carries a number of the most commonly used mathematical formulas, and size tables for laying out cans and measures.

Length, Feet	3	4
LIST EACH	\$3.55	\$4.25

DISCOUNT .....10% OFF

## LUFKIN MECHANICS FOLDING STEEL TEMPERED RULES



Fig. 4895

Six-inch folds. Lock joints. Longest and most sturdy of folding steel rules. Marked both sides, lower edge, inches to 16ths. These rules maintain their accuracy and withstand hard use. Not for very precise work.  $\frac{3}{4}$  inch wide,  $\frac{1}{32}$  inch thick. Each joint is riveted and has two durable stops or snap sockets, holding the sections rigidly in alignment. The lines and figures, deeply sunken and black, are in good contrast, easy to read and permanent. Inches are numbered consecutively. Opposite sides read from reverse ends.

Mfrs. No.	Length Feet	Weight Ounces	LIST EACH
1172	2	3	\$1.30
1173	3	4-1/3	\$2.00
1174	4	6	\$2.60
1175	5	7-1/3	\$3.30
1176	6	8-2/3	\$3.90
1178	8	11-1/3	\$5.40

DISCOUNT .....30% OFF

## LUFKIN FOLDING BRASS TWO-FOOT RULES

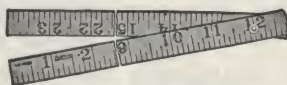


Fig. 4896

12 inch sections. Rust proof of hard brass. Ideal for metal workers. Stop joint. Sunken black lines and figures. Opposite sides measure from reverse ends.

Mfrs. 1085.  $1\frac{1}{16}$  by  $\frac{9}{16}$  inch. Marked on lower edge; one side 8ths; other side 16ths inch.

LIST EACH, \$1.20

Mfrs. 1086.  $\frac{3}{64}$  by  $\frac{3}{4}$  inch. One side marked 16ths on lower edge; other side upper edge marked 8ths inch, lower edge  $\frac{7}{8}$  circumference inches to 8ths opposite the diameter.

LIST EACH, \$2.00

DISCOUNT .....30% OFF

## LUFKIN TEMPERED STEEL RULE

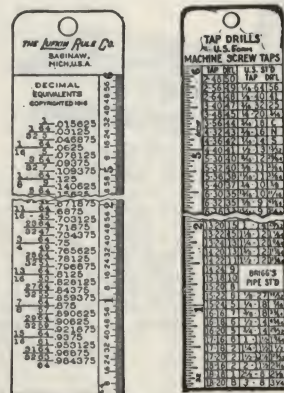


Fig. No. 97 $\frac{1}{2}$

6 in. rule, one side graduated to 64ths, with table of decimal equivalents; other side graduated to 32nds, with table of tap drill sizes.

★ NET EACH, \$0.80

## BROWN & SHARPE TEMPERED STEEL SHRINK RULES

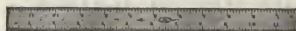


Fig. 4897

Graduated to give shrinkage allowances directly. Graduations are 8ths, 16ths, 32nds, and 64ths. The allowance necessary for shrinkage varies for different kinds of metal; different conditions under which they are cast; and the shape.

### Shrinkage Allowance for Each Foot

Cast Iron .....	$\frac{1}{8}$ Inch
Brass .....	$\frac{3}{16}$ Inch
Steel .....	$\frac{1}{4}$ Inch
Malleable Iron .....	$\frac{1}{8}$ Inch
Zinc .....	$\frac{5}{16}$ Inch
Tin .....	$\frac{1}{12}$ Inch
Aluminum .....	$\frac{3}{16}$ Inch
Britannia .....	$\frac{1}{32}$ Inch

Mfrs. No.	Shrink per foot	Length Inches	Width Inches	LIST EACH
340-6	$\frac{1}{10}$	6-1/20	$\frac{11}{16}$	\$1.00
340-12	$\frac{1}{10}$	12-1/10	$\frac{31}{32}$	\$2.10
340-24	$\frac{1}{10}$	24-1/5	$\frac{31}{32}$	\$4.25
341-6	$\frac{1}{8}$	6-1/16	$\frac{11}{16}$	\$1.00
341-12	$\frac{1}{8}$	12-1/8	$\frac{31}{32}$	\$2.10
341-24	$\frac{1}{8}$	24-1/4	$\frac{31}{32}$	\$4.25
342-12	$\frac{3}{16}$	12-3/16	$\frac{31}{32}$	\$2.10
342-24	$\frac{3}{16}$	24-3/8	$\frac{31}{32}$	\$4.25
343-6	$\frac{1}{4}$	6-1/8	$\frac{11}{16}$	\$1.00
343-12	$\frac{1}{4}$	12-1/4	$\frac{31}{32}$	\$2.10
343-24	$\frac{1}{4}$	24-1/2	$\frac{31}{32}$	\$4.25
344-12	$\frac{5}{16}$	12-5/16	$\frac{31}{32}$	\$2.10
344-24	$\frac{5}{16}$	24-5/8	$\frac{31}{32}$	\$4.25
345-12	$\frac{5}{32}$	12-5/32	$\frac{31}{32}$	\$2.10
345-24	$\frac{5}{32}$	24-5/16	$\frac{31}{32}$	\$4.25
346-12	$\frac{3}{8}$	12-3/8	$\frac{31}{32}$	\$2.10
346-24	$\frac{3}{8}$	24-3/4	$\frac{31}{32}$	\$4.25

DISCOUNT .....10% OFF

## JOHNSON COMBINATION RULES

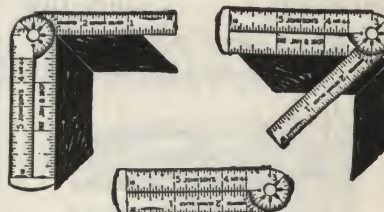


Fig. 3940

Many fine measuring instruments are cleverly combined in this one neat and compact tool. Easily carried in the vest pocket.

It may be used as a Vernier Bevel Protractor, Caliper Gauge, Hook-Rule, Square, Tri-Angle, etc.

Any angle, outside or inside, may be accurately measured or laid out to one half a degree by means of the vernier on the protractor.

Center joint holds rule firmly at any angle.

The Caliper part, graduated in 32nds and 16ths, measures diameters and thicknesses up to 2 inches. By reversing the Caliper, you have a Hook-Rule with a 2 inch extension.

Made of Spring Nickel Silver and will not rust. Graduations are accurately and distinctly engine divided—32nds on the upper edge and 16ths on the lower. With chamois case.

6 inch ....★ NET EACH, \$2.50

12 Inch ...★ NET EACH, \$3.60



### JOHNSON COMBINATION INSIDE CALIPER OUTSIDE CALIPER AND DEPTH GAUGE

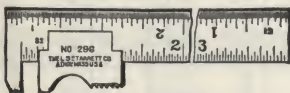


Fig. 4898

Thin model, made of Spring Nickel Silver, will not rust. Very useful and light. Fits in the vest pocket. 5/64 inch jaws by 1 inch deep. The scale is engine divided into 32nds on one edge and 16ths on the other. The nibs can be inserted in a 1/8 inch hole. The sliding jaw is supported by a friction spring.

4 inch .....★ NET EACH, \$2.50  
5 inch .....★ NET EACH, \$2.75  
6 inch .....★ NET EACH, \$2.80

### STARRETT SLIDE CALIPER RULES



Mfrs. 296-S

Rules are 4 inches long, 5/8 inch wide and 1/16 inch thick with jaws 1/2 inch deep. Graduated 32nds and 64ths on one side and 8ths and 16ths on the other side. Thumb piece slides in a groove on the reverse side. Measures objects between the two contacts making it ideal for quick measurement of small rods, tubing, sheet stock, etc. Highly satisfactory for any mechanic but of extreme value in stock rooms, stores, etc.

List Each, \$2.50

DISCOUNT .....10% OFF

### STARRETT POCKET SLIDE CALIPERS



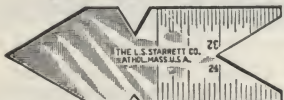
Mfrs. 425-S

Graduated in 32nds and 64ths. Clamping device may be locked by the thumb of the same hand in which the tool is held. The two lines on the stock permit either inside or outside measurements.

Size Inch	Jaw Depth	Nibs Closed	List Each
3	1 1/16	.125	\$4.00
5	1 7/16	.250	5.00

DISCOUNT .....10% OFF

### STARRETT CENTER GAUGE



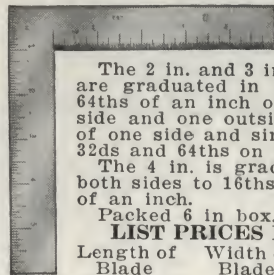
Mfrs. 390-S and No. 391-S

For use in grinding and setting screw cutting tools. Angles are 60°. No. 390-S Graduated one corner each in 32ds, 24ths, 20ths and 14ths. List Each, \$0.40

No. 391-S Spring-tempered. List Each, .50

DISCOUNT .....10% OFF

### BROWN & SHARPE THIN STEEL SQUARES

Fig. No.  
547  
B. & S.

The 2 in. and 3 in. squares are graduated in 16ths and 64ths of an inch on one inside and one outside corner of one side and similarly to 32ds and 64ths on the other. The 4 in. is graduated on both sides to 16ths and 32ds of an inch.

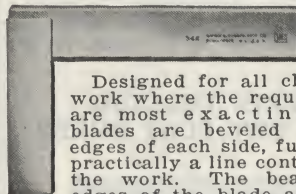
Packed 6 in box.

#### LIST PRICES EACH

Length of Blade Inches	Width of Blade, Inches	List Each
2	1/2	\$2.10
3	5/8	2.70
4	3/4	3.60
6	1	5.10
8	1 1/8	6.60

DISCOUNT .....10% OFF

### BROWN & SHARPE STEEL SQUARES WITH BEVELED EDGES

Fig.  
No. 542  
B. & S.

Designed for all classes of work where the requirements are most exacting. The blades are beveled on both edges of each side, furnishing practically a line contact with the work. The beams and edges of the blade are hardened and accurately ground for

parallelism.

Substantial wooden cases for protecting the squares when not in use can be furnished when desired.

Blade Length Inches	Beam Length Inches	LIST EACH	Case List Extra
1-1/2	1-9/16	\$4.20	....
3	2-7/16	\$5.70	\$2.25
4-1/2	3-9/16	\$8.40	\$2.50
6	4-3/8	\$11.40	\$3.00

DISCOUNT .....10% OFF

### BROWN & SHARPE ADJUSTABLE SQUARE



Fig. 4257

Blades may be adjusted to any length, and are reversible. Wide blade is 2 1/2 inches long, is graduated on one side, one edge in 32nds and the other in 64ths. Blade with beveled ends is for establishing 60 and 45 degree angles and for checking angles or thread tools of same degrees. Narrow blade is graduated on one side in 32nds of an inch and can be inserted in small holes. Tempered blades. Hardened and ground beam.

Mfrs. No.	Beam With	LIST EACH
554Comp.	Three Blades	\$4.20
554Bev.	Revel only	\$3.90
554NB	Narrow Blade	\$3.90
554WB	Square Blade	\$3.60

DISCOUNT .....10% OFF

### LUFKIN DOUBLE SQUARES WITH GRADUATED, BEVEL, AND DRILL GRINDING TEMPERED BLADES

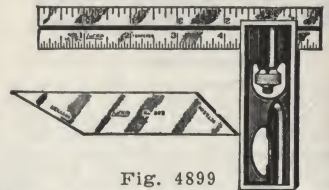


Fig. 4899

Particularly convenient for pattern makers, machinists and tool makers. The blades are tempered and adjustable in length by moving the head. Thumb screw sets the blades at any point. Both faces of the head are square. The bevel blade gives hexagon and octagon angles. The drill grinding blade if ordered, will convert the tool into a practical drill grinding gauge. Graduated 8ths, 16ths, 32nds and 64ths of an inch. The 6 inch sizes only are equipped with a level.

Mfrs. No.	Length Inches	LIST EACH
With Graduated Blade Only		
26A-4	4	\$1.85
26A-6	6	\$2.85
With Graduated and Bevel Blades		
26B-4	4	\$2.35
26B-6	6	\$3.45
With Graduated, Bevel and Drill Grinding Blades		
26C-6	6	\$4.70

DISCOUNT .....10% OFF

### LUFKIN DIE MAKERS SQUARES

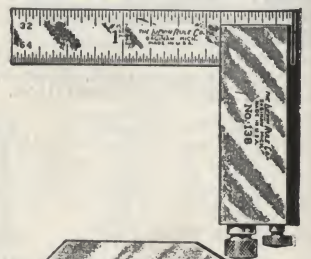


Fig. 4900

With hardened and ground heads and blades. The blades slide in the head and can be adjusted at an angle with the stock. Both faces of the stock are square. Two knurled thumb screws, the larger one is for locking blade in desired position, the smaller screw is for setting any of the blades at an angle.

**Standard Blade** is graduated one side; upper edge 32nd, lower edge 64ths inch. 2-1/2 by 1/2 inches.

**Bevel Blade** to determine 30 and 45 degree angles. 2-1/2 by 1/2 inches.

**Narrow Blade**, 5/32 by 2-1/2 inches. Cut away on one end 3/4 inch black, giving a blade 3/32 inch by 1/16 inch for use in very small places. Graduated one side to 32nds inch.

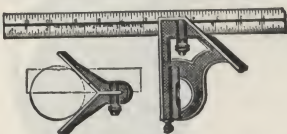
**Offset Blade** used in places where it is difficult to sight with the straight blade. Offset end is 1/8 inch wide and extends about 1-1/2 inch. Both sides of each edge are beveled to give a line contact.

Mfrs. No.	Square with Blades:—	LIST EACH
138CX	All 4 Listed Above	\$5.80
138A	Standard	\$4.00
138B	Standard and Bevel	\$4.30
138N	Standard and Narrow	\$4.50
138C	Std., Bevel and Narrow	\$4.80

DISCOUNT .....10% OFF



STARRETT  
COMBINATION SQUARES



With the adjustable blade this forms one of the most convenient and useful tools ever devised for mechanics' use. Convenient for transferring exact measurements or laying out work, for a depth gage, or to square in a mortise. For a miter it is perfect, while with the auxiliary center head it forms a centering square, both inside and outside. All sizes, except 4 in., with levels. The blades are hardened and graduated in No. 4 or No. 7 graduation with heavy figures, reading both ways. No. 4 graduation furnished unless otherwise specified.

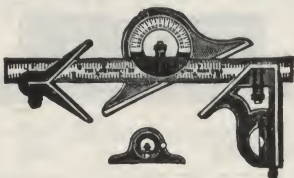
With Center Head		Without Center Head	
List Each	Center Head	List Each	Center Head
<b>Mfrs. 11S. With Hardened Blade Only.</b>			
4 inch	\$2.10	\$1.50	
6 inch	2.40	1.80	
9 inch	3.00	2.40	
12 inch	3.60	3.00	
18 inch	4.50	3.90	
24 inch	5.40	4.80	

<b>Mfrs. 33S. With Hardened Heads And Hardened Blades.</b>		
4 inch	\$3.80	\$2.30
6 inch	4.60	3.10
9 inch	5.30	3.40
12 inch	6.20	4.30
18 inch	7.30	5.40
24 inch	8.20	6.30

These squares are sent complete with center head unless otherwise ordered.

DISCOUNT .....10% OFF

STARRETT  
COMBINATION SETS WITH  
HARDENED BLADE



No. 9-S

The combination square met with such universal approval from machinists that it was but a step to add to it the protractor head and have a combination set, made up of the rule on which slide the square, center, and protractor heads. This makes possible more varieties of uses in laying out and testing work than are possible with any other instrument used by mechanics.

There are a number of different combinations of the heads with different lengths and styles of rules which are shown on succeeding pages. This cut shows combination square with center head and 7 inch bevel protractor, all on the No. 11 square blade. Furnished with No. 4 and No. 7 graduation. No. 4 graduation sent unless otherwise ordered.

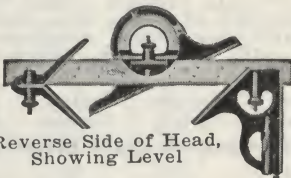
<b>LIST PRICES PER SET</b>	
9 inch	\$6.00
12 inch	6.60
18 inch	7.50
24 inch	8.40
DISCOUNT .....10% OFF	

BROWN & SHARPE  
COMBINATION SETS

Accurately made and adaptable to a great many uses. The unhardened heads are of cast iron. The hardened heads are drop forged and are light, durable, and convenient.

The revolving turrets in the protractors are accurately fitted and graduated to 90 degrees either side of zero. They can be set accurately at any angle and rigidly clamped by a thumb nut.

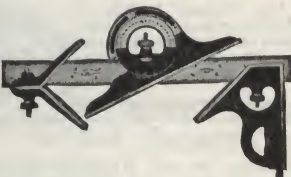
The levels are accurately set and fastened to the side of the turret and in a protected position on the square head.



Reverse Side of Head,  
Showing Level

<b>Mfrs. 425-B&amp;S. With FORGED Hardened Square and Center Heads.</b>	
9 Inch Blade.....List Each,	\$ 8.30
12 Inch Blade.....List Each,	\$ 9.20
18 Inch Blade.....List Each,	\$10.30
24 Inch Blade.....List Each,	\$11.20

<b>Mfrs. 426-B&amp;S. With CAST, not Hardened Square and Center Heads.</b>	
9 Inch Blade.....List Each,	\$6.00
12 Inch Blade.....List Each,	6.60
18 Inch Blade.....List Each,	7.50
24 Inch Blade.....List Each,	8.40



**Mfrs. 43S-B&S. HARDENED HEADS.** With reversible protractor head, square and center. Tempered blades.

9 Inch Blade	.....List Each,	\$9.50
12 Inch Blade	.....List Each,	\$10.40
18 Inch Blade	.....List Each,	\$11.50
24 Inch Blade	.....List Each,	\$12.40

**Mfrs. 439-B&S. HEADS NOT HARDENED.** With reversible protractor head, square and center. Tempered blades.

9 Inch Blade	.....List Each,	\$7.20
12 Inch Blade	.....List Each,	\$7.80
18 Inch Blade	.....List Each,	\$8.70
24 Inch Blade	.....List Each,	\$9.60

DISCOUNT .....10% OFF

STARRETT  
COMBINATION SQUARES



Fig. 4907. Mfrs. 94

With level, miter and plumb. The head may be clamped to any point of the blade. The blade is graduated 8ths and 16ths on both sides with distinct lines and figures. Combines a marking gage, rule, square, miter, depth gage, height gage, level and plumb.

9 Inch	.....LIST EACH,	\$1.35
12 Inch	.....LIST EACH,	\$1.50
DISCOUNT .....10% OFF		

BROWN & SHARPE  
COMBINATION SQUARES

Blades are tempered.

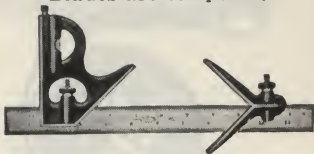


Fig. 4258

**Mfrs. 400-B&S. With FORGED Heads Hardened.**

6 Inch Blade.....List Each,	\$4.60
9 Inch Blade.....List Each,	\$5.30
12 Inch Blade.....List Each,	\$6.20
18 Inch Blade.....List Each,	\$7.30
24 Inch Blade.....List Each,	\$8.20

**Mfrs. 402-B&S. With CAST Heads Not Hardened.**

6 Inch Blade.....List Each,	\$2.40
9 Inch Blade.....List Each,	3.00
12 Inch Blade.....List Each,	3.60
18 Inch Blade.....List Each,	4.50
24 Inch Blade.....List Each,	5.40



Fig. 4906  
Without center heads.

<b>Mfrs. 401-B&amp;S. Heads hardened.</b>	
4 Inch Blade	.....List Each, \$2.30
6 Inch Blade	.....List Each, \$3.10
9 Inch Blade	.....List Each, \$3.40
12 Inch Blade	.....List Each, \$4.30
18 Inch Blade	.....List Each, \$5.40
24 Inch Blade	.....List Each, \$6.30

**Mfrs. 403-B&S. Heads NOT hardened.**

4 Inch Blade	.....List Each, \$1.50
6 Inch Blade	.....List Each, \$1.80
9 Inch Blade	.....List Each, \$2.40
12 Inch Blade	.....List Each, \$3.00
18 Inch Blade	.....List Each, \$3.90
24 Inch Blade	.....List Each, \$4.80

DISCOUNT .....10% OFF

B & S UNIVERSAL BEVEL

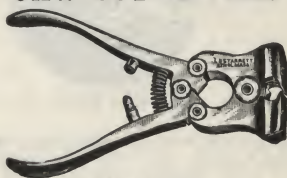


Fig. 4908. Mfrs. 499

3 inch case, solid on top 1-5/8 inches from square end which forms a rest to place and accurately fit work.

LIST EACH	.....\$2.25
DISCOUNT .....10% OFF	

STARRETT ADJUSTABLE  
JAW CUT-NIPPERS



Mfrs. 1-S

Drop forged steel head and handles, case hardened. Detachable jaws, made from high grade steel tempered, with cutting edges ground to a short steep bevel.

5-1/2 Inch	.....LIST EACH,	\$3.50
7 Inch	.....LIST EACH,	\$4.50
Extra Jaws	.....List Pair,	\$0.60
DISCOUNT .....5% OFF		



### LUFKIN UNIVERSAL STEEL TAPE



Fig. No. 3043

$\frac{1}{8}$  inch wide steel tape, "Nubian" black finish, instantaneous readings, marked in feet, inches, and 8ths of inches, one side only. Steel case, nickel plated binding, brown imit. leather sides; nickel plated folding flush handle with pin release. Each in box.

No.	Length, Feet	List Each
540	25	\$3.10
543	50	\$3.50
545	75	\$4.80
546	100	\$5.90

DISCOUNT ..... 25% OFF

### LUFKIN METALLIC TAPES



Fig. 4340

Folding handle. High grade woven tape of linen and metallic warp.  $\frac{1}{8}$  inch wide. Leather reinforcement first end. Clearly marked on one side feet and inches. Russet leather case, hand-stitched, with metal liner. Trimmings nickel plated.

Mfrs. No.	Length Feet	Weight Ounces	List Each
500	25	9	\$3.90
503	50	13	\$5.50
505	75	21	\$7.00
506	100	24	\$8.70

DISCOUNT ..... 25% OFF

### LUFKIN ASS SKIN (COTTON) TAPES



Fig. No. 3042

Half inch wide cotton tape, clearly marked feet and inches, one side only, well coated. Sheet steel case, brass bound, cream enameled sides; brass folding handle and trimmings. Each in carton.

No.	Length, Feet	List Each
710	25	\$0.50
713	50	\$0.65
715	75	\$1.00
716	100	\$1.30

DISCOUNT ..... 25% OFF

### LUFKIN CRESCENT STEEL TAPE RULES AUTOMATIC REWIND



Fig. 4260

Accurate. Crescent shaped, flexible, tempered steel tape rule. Chromium plated case. When withdrawn rule is rigid. Clip hook. Marked consecutive inches to 16ths.

Mfrs. No.	Length Inches	Width Inches	★ NET EACH
<b>STANDARD—Nickel Plated Blade</b>			
696	72	$\frac{5}{8}$	\$2.00
<b>JUNIOR—Dark Background on Blade</b>			
1696	72	$\frac{7}{16}$	\$1.60
<b>WIZARD—N. P. Blade—No Rewind</b>			
686	72	$\frac{5}{8}$	\$0.75
1686	72	$\frac{1}{2}$	\$0.65

### LUFKIN MEZURALL STEEL TAPE RULE

For Exact Inside Measurement of an Opening Add 2 Inches to Reading at This Point

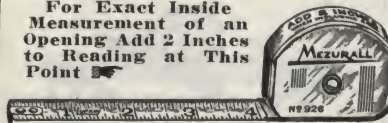


Fig. 4909 Mfrs. 926

Suitable for all standard measuring work and will also take exact inside measurements of door and window openings and similar spaces. Can be used to take accurate inside measures even when both limits of the space are at the bottom of a channel or groove. Both the graduated and the extension blade remain set at any length withdrawn. Sliding hook. Nickel plated. Marked one side, inches to 16ths. 72 inches long.  $1\frac{1}{2}$  inch wide.

★ NET EACH, \$1.25

### STARRETT POCKET STEEL TAPES



Starrett No. 500-S

These tapes are  $\frac{1}{4}$  inch wide, in well finished nickel-plated cases, with rounded edges. Spring wind with center stop. Graduated in inches and sixteenths of an inch.

#### LIST PRICES EACH

Length	List Each
36 inch	\$0.95
60 inch	\$1.25
72 inch	\$1.35
96 inch	\$1.90

DISCOUNT ..... 25% OFF

### LUFKIN LINEN TAPES



Fig. 4341

Extra grade. Strong. Extra durable. Corded with pure, unbleached linen.  $\frac{1}{2}$  inch wide. Well coated Sheet steel case, brass bound, with sides maroon enameled. Brass folding handle and trimmings. Marked feet and inches, one side only.

Mfrs. No.	Length Feet	Weight Ounces	List Each
730	25	2 $\frac{3}{4}$	\$0.70
733	50	4 $\frac{1}{4}$	\$1.10
735	75	6	\$1.35
736	100	7	\$1.70

DISCOUNT ..... 25% OFF

### ALUMINUM POCKET TORPEDO LEVEL



Fig. 4342

Pocket size, all-purpose level. Die cast aluminum shell. 9 inches long  $\frac{1}{2}$  inch wide.  $1\frac{1}{4}$  inches high. Weighs 4 ounces. One plumb, one level and one 45 degree vial with yellow alcohol. Top plate removable. Bottom fitted with groove for use on shafting.

★ NET EACH, \$1.50

### STARRETT 130-S IRON BENCH LEVEL



3 $\frac{1}{2}$  inch ..... List Each, \$0.60  
DISCOUNT ..... 5% OFF

### STARRETT BENCH LEVEL WITH DOUBLE PLUMBS

Mfrs. 132S. Iron. Longitudinal groove, concave section of 1 inch circle in seat of base for resting on cylindrical work, piping, shafting, etc.



4 inch, square end..List Each, \$1.65  
6 inch, square end..List Each, 1.80



9 inch, square end..List Each, \$2.00  
12 inch, square end..List Each, 2.10



18 inch, concave end..List Each, \$3.00  
24 inch, concave end..List Each, 3.50  
DISCOUNT ..... 5% OFF



WILLIAMS T-HANDLE  
SOCKET WRENCHES



Fig. 5257 Hexagon

Fig. 5258 Square

HEXAGON SOCKET

Mfrs. No.	—HEXAGON OPENINGS—				—LIST EACH—			
	For U. S. Std. Nut; Size Bolt	For Cap Screw; Dia. Screw	For S.A.E. Std. Screw and Nut	Amer. Std. Nut, Reg. & Jam	Broached Opening Across Flats	Head Diameter	Without Pin Handle	With Pin Handle
961A	1/8				21/64	1/2	\$ .40	\$ .60
962D		3/16			25/64	5/8	\$ .44	\$ .66
963A	3/16				27/64	11/16	\$ .48	\$ .74
964A	1/4	5/16	1/4	1/4	29/64	11/16	\$ .48	\$ .74
965D	3/8	3/8	3/8	5/16	33/64	3/4	\$ .52	\$ .78
965A	5/16				37/64	7/8	\$ .58	\$ .86
966D		7/16	7/16	3/8	39/64	7/8	\$ .58	\$ .86
967A	3/8				41/64	1	\$ .64	\$ .94
967D		1/2	1/2	7/16	45/64	1-1/8	\$ .72	\$ 1.06
968A	7/16				49/64	1-1/8	\$ .72	\$ 1.06
968D		9/16		1/2	51/64	1-1/4	\$ .80	\$ 1.14
969A	1/2	5/8	9/16	9/16	57/64	1-3/8	\$ .92	\$ 1.28
970A	9/16		5/8		61/64	1-1/2	\$ 1.04	\$ 1.44
970D		3/4	11/16	5/8	63/64	1-1/2	\$ 1.04	\$ 1.44
971A	3/4		3/4		1-1/64	1-5/8	\$ 1.20	\$ 1.60
971D	5/8	7/8		3/4	1-5/32	1-5/8	\$ 1.20	\$ 1.60
973A	3/8		7/8		1-9/32	1-7/8	\$ 1.60	\$ 2.20
975A	7/8	1			1-15/32	2-1/8	\$ 2.00	\$ 2.70
975D		1-1/8	1		1-17/32	2-1/8	\$ 2.00	\$ 2.70
976A	1		1-1/8		1-21/32	2-3/8	\$ 2.30	\$ 3.10
977A	1-1/8		1-1/4		1-27/32	2-5/8	\$ 2.60	\$ 3.50
978A	1-1/4		1-3/8		2-1/32	2-7/8	\$ 3.20	\$ 4.10
979A	1-3/8		1-1/2		2-7/32	3	\$ 4.20	\$ 5.20
980A	1-1/2				2-13/32	3-5/16	\$ 5.60	\$ 6.90

DISCOUNT { 1 to 5.....40% OFF  
                  { 6 or More.....45% OFF

Fig. 5258

SQUARE SOCKET

Mfrs. No.	—SQUARE OPENINGS—				—LIST EACH—			
	For U. S. Std. Nut; Size Bolt	For Cap Screw; Dia. Screw	For Set Screw Size	American Std. Nut, Regular	Broached Opening	Head Diameter	Without Pin Handle	With Pin Handle
60H		1/8			13/64	5/16	\$ .36	\$ .52
61H		3/16			17/64	1/2	\$ .40	\$ .60
61J		1/4			21/64	5/8	\$ .44	\$ .66
62H		5/16			25/64	11/16	\$ .48	\$ .74
63H	1/4	3/8		1/4	29/64	7/8	\$ .58	\$ .86
65H		5/16			33/64	1	\$ .64	\$ .94
66H		3/8	1/2		37/64	1-1/8	\$ .72	\$ 1.06
67H		7/16	9/16	5/16	41/64	1-1/4	\$ .80	\$ 1.14
68H		1/2	5/8	3/8	45/64	1-1/4	\$ .80	\$ 1.14
68P	3/8	9/16			49/64	1-3/8	\$ .92	\$ 1.28
69H		5/8	3/4	7/16	57/64	1-5/8	\$ 1.20	\$ 1.60
71H	1/2	3/4	7/8	9/16	1-1/64	1-7/8	\$ 1.60	\$ 2.20
73H		1	5/8	1-1/8	1-5/32	2	\$ 1.80	\$ 2.50
74H		7/8	1-1/8	3/4	1-9/32	2-3/8	\$ 2.30	\$ 3.10
76H	3/4	1	1-1/4		1-13/32	2-5/8	\$ 2.60	\$ 3.50
77H		1-1/8			1-15/32	2-5/8	\$ 2.60	\$ 3.50
77X	7/8				1-17/32	2-5/8	\$ 2.60	\$ 3.50
77P		1-1/4	1		1-21/32	2-7/8	\$ 3.20	\$ 4.10
78P	1	1-3/8			1-27/32	3	\$ 4.20	\$ 5.20
79X	1-1/8				2-1/32	3-5/16	\$ 5.60	\$ 6.90
80X	1-1/4				2-7/32	3-5/16	\$ 5.60	\$ 6.90

DISCOUNT { 1 to 5.....40% OFF  
                  { 6 or More.....45% OFF

WILLIAMS OFFSET  
SOCKET WRENCHES



Fig. 5259

HEXAGON SOCKET

Mfrs. No.	—HEXAGON OPENINGS—				—LIST EACH—			
	For U. S. Std. Nut; Size Bolt	For Cap Screw Diam. Screw	S.A.E. Std. Screw and Nut	Amer. Std. Nut, Reg. & Jam	Opening Across Flats	Diameter of Head	Handle Offset, Clear from Face of Wrench	Unhardened Hardened
261A	1/8				21/64	1/2	13/16	\$ .40 \$ .60
262D		3/16			25/64	5/8	1	\$ .44 \$ .66
263A	3/16				27/64	11/16	1-1/16	\$ .48 \$ .72
263D		1/4	1/4	1/4	29/64	11/16	1-1/16	\$ .48 \$ .72
264A	1/4	5/16	5/16		33/64	3/4	1-1/4	\$ .52 \$ .78
265D		3/8	3/8	5/16	37/64	7/8	1-7/16	\$ .58 \$ .88
265A	5/16				39/64	7/8	1-7/16	\$ .58 \$ .88
266D		7/16	7/16	3/8	41/64	1	1-9/16	\$ .64 \$ .96
267A	3/8				45/64	1-1/8	1-5/8	\$ .72 \$ 1.08
267D		1/2	1/2	7/16	49/64	1-1/8	1-5/8	\$ .72 \$ 1.08
268A	7/16				51/64	1-1/4	1-13/16	\$ .80 \$ 1.20
268D		9/16	9/16	1/2	53/64	1-1/4	1-13/16	\$ .80 \$ 1.20
269A	1/2	5/8	9/16	9/16	57/64	1-3/8	2	\$ .92 \$ 1.38
270S			5/8		61/64	1-1/2	2-3/16	\$ 1.04 \$ 1.56
270A	9/16				63/64	1-1/2	2-3/16	\$ 1.04 \$ 1.56
270D		3/4	11/16	5/8	1-1/64	1-1/2	2-3/16	\$ 1.04 \$ 1.56
271A	5/8		3/4		1-5/64	1-5/8	2-3/8	\$ 1.20 \$ 1.80
271D		7/8		3/4	1-5/32	1-5/8	2-3/8	\$ 1.20 \$ 1.80
273A	3/4	1	7/8		1-9/32	1-7/8	2-3/4	\$ 1.60 \$ 2.40
273B				7/8	1-11/32	1-7/8	2-3/4	\$ 1.60 \$ 2.40
275A	7/8		1		1-15/32	2-1/8	3-1/8	\$ 2.00 \$ 3.00
275D		1-1/8		1	1-17/32	2-1/8	3-1/8	\$ 2.00 \$ 3.00
276A	1		1-1/8		1-21/32	2-3/8	3-1/2	\$ 2.30 \$ 3.44
276B		1-1/4		1-1/8	1-23/32	2-3/8	3-1/2	\$ 2.30 \$ 3.44
277A	1-1/8		1-1/4		1-27/32	2-5/8	3-7/8	\$ 2.60 \$ 3.90
278A	1-1/4		1-3/8		2-1/32	2-7/8	4-3/8	\$ 3.20 \$ 4.80
279A	1-3/8		1-1/2		2-7/32	3	4-7/8	\$ 4.20 \$ 6.30
280A	1-1/2				2-13/32	3-5/16	5-3/8	\$ 5.60 \$ 8.40

DISCOUNT { 1 to 5.....40% OFF  
                  { 6 or More.....45% OFF



Fig. 5260

SQUARE SOCKET

Mfrs. No.	—SQUARE OPENINGS—				—LIST EACH—			
	For Set Screw; Size	For Cap Screw; Diam. Screw	For U. S. Std. Nut; Size Bolt	For Amer. Std. Nut, Reglr.	Broached Opening	Diam. of Head, Inch	Handle Offset, Clear from Face of Wrench	Unhardened Hardened
260H	1/8				13/64	5/16	9/16	\$ .36 \$ .54
261H	3/16				17/64	1/2	13/16	\$ .40 \$ .60
261J	1/4				21/64	5/8	1	\$ .44 \$ .66
262H	5/16				25/64	11/16	1	\$ .48 \$ .74
263H	3/8	1/4			29/64	7/8	1-1/16	\$ .58 \$ .88
265H	7/16	5/16		1/4	33/64	1	1-7/16	\$ .64 \$ .96
266H	1/2	3/8			37/64	1-1/8	1-5/8	\$ .72 \$ 1.08
267H	9/16	7/16		5/16	41/64	1-1/4	1-5/8	\$ .80 \$ 1.20
268H	5/8	1/2		3/8	45/64	1-1/4	1-13/16	\$ .80 \$ 1.20
268P		9/16	3/8		49/64	1-3/8	2	\$ .92 \$ 1.38
269H	3/4	5/8		7/16	57/64	1-5/8	2-3/4	\$ 1.20 \$ 1.80
271H	7/8	3/4	1/2	9/16	1-1/64	1-7/8	2-3/8	\$ 1.60 \$ 2.40
273H	1			1-1/8	1-5/32	2	2-3/4	\$ 1.80 \$ 2.50
274H	1-1/8	7/8		3/4	1-9/32	2-3/8	3-1/2	\$ 2.30 \$ 3.44
276H	1-1/4	1		1-1/8	1-13/32	2-5/8	3-7/8	\$ 2.60 \$ 3.90
277N					1-15/32	2-5/8	3-7/8	\$ 2.60 \$ 3.90
277X					1-17/32	2-5/8	3-7/8	\$ 2.60 \$ 3.90
277P		1-1/4		1	1-21/32	2-7/8	4-3/8	\$ 3.20 \$ 4.80
278P		1-3/8			1-27/32	3	4-7/8	\$ 4.20 \$ 6.30
279X			1-1/8		2-1/32	3-5/16	5-3/8	\$ 5.60 \$ 8.40

DISCOUNT { 1 to 5.....40% OFF  
                  { 6 or More.....45% OFF



# WILLIAMS' 'SUPER-SOCKET' WRENCHES

CHROME-PLATED OVER NICKEL. CHROME-MOLYBDENUM STEEL, HEAT-TREATED.  
FULLY GUARANTEED.



## MIDGET

### 9/32 Inch Square Drive

Size Open- ing	Mfrs. No.	Open- ing, Points	LIST EACH
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Fig. 5261

#### HEXAGON SOCKETS

3/16	M-606	6	\$0.45
7/32	M-607	6	\$0.45
1/4	M-608	6	\$0.45
9/32	M-609	6	\$0.45
5/16	M-1210	12	\$0.45
11/32	M-1211	12	\$0.45
3/8	M-1212	12	\$0.45
7/16	M-1214	12	\$0.45

Fig. 5262

#### SQUARE SOCKETS

3/16	M-406	4	\$0.45
7/32	M-407	4	\$0.45
1/4	M-408	4	\$0.45
5/16	M-810	8	\$0.45
3/8	M-812	8	\$0.45

Fig. 5263

#### HANDLES AND PARTS LIST EACH

**M-20A** Sliding T Handle. 4-1/2 inches long...\$1.02  
**M-42** Flex Handle. 5-1/2 inches long. Flexible head, knurled grip, cross hole for use with sliding bar...\$1.40  
 Sliding Bar. 1/4 inch round by 4-1/2 inch. For M-42...\$0.25  
**M-110** Extension Driver. Has lockable-revolving, knurled handle with 9/32 inch square drive-opening in end. May be used either as an Extension with handy revolving grip for spinning nuts, or as a Driver with handle locked. A slight turn of the handle locks and unlocks same instantly...\$1.44  
**M-115** Extension. 6 inches long...\$1.08

## BANTAM

### 3/8 Inch Square Drive

Size Open- ing	Mfrs. No.	Open- ing, Points	LIST EACH
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Fig. 5264

#### HEXAGON SOCKETS

##### Regular Pattern

1/4	F-608	6	\$0.72
11/32	F-1211	12	\$0.72
5/8	F-1220	12	\$0.72
3/4	F-1224	12	\$0.84

Fig. 5265

#### HEXAGON SOCKETS

##### Straight Wall

1/4	B-608	6	\$0.72
5/16	B-1210	12	\$0.72
11/32	B-1211	12	\$0.72
3/8	B-1212	12	\$0.72
7/16	B-1214	12	\$0.72
1/2	B-1216	12	\$0.72
9/16	B-1218	12	\$0.72
5/8	B-1220	12	\$0.72
11/16	B-1222	12	\$0.84
3/4	B-1224	12	\$0.84



Fig. 5266

#### HANDLES AND PARTS LIST EACH

**F-15** Speeder. 16-1/2 inches long, knurled revolving grip...\$2.10  
**B-20A** Sliding T Handle. 6-1/2 inches long...\$1.35  
**B-30** Offset Handle. 7-3/4 inches long...\$1.50  
**B-40** Flex Handle. 8 inches. Flexible head, knurled grip with 3/8 inch square drive hole in end...\$2.70  
**B-42** Flex Handle only. 8 inches long. Flexible head, knurled grip, cross hole for sliding bar...\$2.70  
 Sliding Bar, 5/16 inch round by 6 inches for B-42...\$0.40  
**B-50** Ratchet. 6-1/2 inches long. With plug connector...\$3.60  
**B-51** Reversible Ratchet. 6-1/2 inches long. 24 teeth in gear. Turning shift lever reverses action instantly...\$4.50  
**B-108** Extension Bar. 3 inches long...\$1.08  
**B-110** Extension Bar. 5-1/2 inches long...\$1.08  
**B-115** Extension Bar. 10-1/2 inches long...\$1.20  
**B-140** Universal Joint...\$2.46

## STANDARD

### 1/2 Inch Square Drive

Size Open- ing	Mfrs. No.	Open- ing, Points	LIST EACH
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Fig. 5267

#### HEXAGON SOCKETS

##### Regular Pattern

11/16	S-1222	12	\$0.84
1-1/16	S-1234	12	\$1.20
1-1/8	S-1236	12	\$1.32
1-3/16	S-1238	12	\$1.38
1-1/4	S-1240	12	\$1.44

Fig. 5268

#### HEXAGON SOCKETS

##### Straight Wall

7/16	ST-1214	12	\$0.72
1/2	ST-1216	12	\$0.72
9/16	ST-1218	12	\$0.72
19/32	ST-1219	12	\$0.72
5/8	ST-1220	12	\$0.72
11/16	ST-1222	12	\$0.84
3/4	ST-1224	12	\$0.90
25/32	ST-1225	12	\$0.90
13/16	ST-1226	12	\$0.90
7/8	ST-1228	12	\$0.90
15/16	ST-1230	12	\$1.08
31/32	ST-1231	12	\$1.08
1	ST-1232	12	\$1.08

Fig. 5269

#### SQUARE SOCKETS

5/16	S-410	4	\$0.72
3/8	S-412	4	\$0.72
7/16	S-414	4	\$0.72
1/2	S-416	4	\$0.72



Fig. 5270

#### HANDLES AND PARTS LIST EACH

**S-10** Speeder. 12 inches long, with revolving grips...\$2.70  
**S-15** Speeder. 17-1/2 inches long, with revolving grips...\$2.70  
**S-20A** Straight Sliding T Handle. 11 inches long. Similar to S-20C, but with straight handle...\$2.10  
**S-20C** Offset Sliding T Handle. 11-1/2 inches. Unusually efficient, with 12-point socket, rotates hex nut where handle swings only 15°...\$2.25  
**S-41** Flex Handle. 17 inches long, flexible head. Knurled grip with 1/2 inch square drive hole in end for use as Extension; 1/2 inch round hole for bar...\$4.50  
**S-42** Flex Handle only. 14 inches long; flexible head knurled grip, cross hole for sliding bar...\$3.90  
 Sliding Bar, 7/16 inches round x 9 inches for S-42...\$0.60  
**S-50** Ratchet. 10 inches long, complete with reversible locked-in plug connector...\$4.50  
**S-51** Reversible Ratchet. 10-1/2 inches long, 24 teeth in ratchet gear instead of usual 16. Turning shift-lever reverses action instantly...\$6.75  
**S-110** Extension Bar. 5-1/2 inches long with knurled revolving grip...\$1.80  
**S-115** Extension Bar. 10-1/2 inches long, with knurled revolving grip...\$2.10  
**S-140** Universal Joint...\$2.70

## HEAVY DUTY

### 3/4 Inch Square Drive

Size Open- ing	Mfrs. No.	Open- ing, Points	LIST EACH
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Fig. 5271

#### HEXAGON SOCKETS

7/8	H-1228	12	\$1.08
15/16	H-1230	12	\$1.08
31/32	H-1231	12	\$1.08
1	H-1232	12	\$1.08
1-1/16	H-1234	12	\$1.32



Fig. 5272

#### HANDLES AND PARTS LIST EACH

**H-20A** Sliding T Handle. 17-1/2 inches long...\$3.30  
**H-50** Ratchet. 18-1/2 inches long; complete with plug connector H-150...\$10.50  
**H-110** Extension Bar. 8 inches long...\$2.70  
**H-115** Extension Bar. 15-1/2 inches long...\$3.30  
**HX-130** Adapter. 3/4 inch square female and 1 inch hex male; adapts heavy duty handles (3/4 inch square male drive) to extra heavy duty sockets (1 inch hex female drive)...\$1.50  
**H-140** Universal Joint...\$7.50  
**H-150** Ratchet Plug Connector...\$1.20

## EXTRA HEAVY DUTY 1 Inch Hex Drive

Size Open- ing	Mfrs. No.	Open- ing, Points	LIST EACH
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Fig. 5273

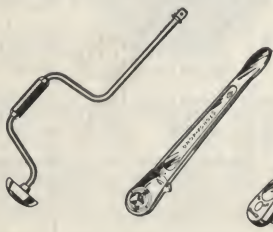
#### HEXAGON SOCKETS

1-1/16	X-1234	12	\$1.80
1-1/8	X-1236	12	\$1.80
1-1/4	X-1240	12	\$1.98
1-3/8	X-1244	12	\$2.10
1-7/16	X-1246	12	\$2.22
1-1/2	X-1248	12	\$2.70
1-5/8	X-1252	12	\$3.00
1-13/16	X-1258	12	\$4.20
2	X-1264	12	\$4.80
2-3/16	X-1270	12	\$6.30
2-3/8	X-1276	12	\$7.50
2-1/2	X-1280	12	\$10.50
2-9/16	X-1282	12	\$12.00
2-3/4	X-1288	12	\$16.50

Fig. 5274

#### HANDLES AND PARTS

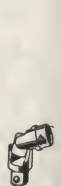
**X-50** Ratchet. 20-1/2 inches long; complete with plug connector...\$16.20  
 Other Parts on Request.



Speeder



Ratchet

Reversible  
RatchetExtension  
BarExtension  
BarExtension  
BarFlex  
HandleSliding  
T-HandleUniversal  
Joint

**DISCOUNTS SOCKETS AND PARTS** 1 to 5 ..... 40-5% OFF  
 6 or More ..... 45-5% OFF



## WILLIAMS' CHROME PLATED SOCKET WRENCH SETS

Straight wall 12-point sockets.

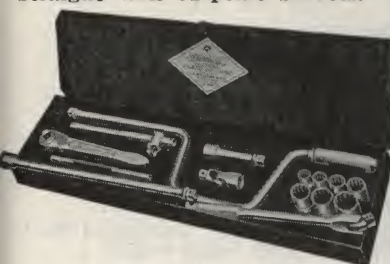


Fig. 4911. Mfrs. B315  
3/8 INCH SQUARE DRIVE. 7  
Sockets, size opening, inches, 3/8,  
7/16, 1/2, 9/16, 5/8, 11/16, and 3/4. 7  
attachments: 6-1/2 inch reversible  
ratchet; Long speeder, 16-1/2 inches;  
5-1/2 inch flex handle with 'T' bar;  
6-1/2 inch sliding 'T' handle; 3 inch,  
short extension bar; 10-1/4 inch,  
long extension bar. Steel case, 17-  
3/4 by 5 by 1-1/4 inches.  
★ NET COMPLETE SET...\$7.13



Fig. 4912. Mfrs. S330  
1/2 INCH SQUARE DRIVE. 10  
Sockets, size opening, inches, 7/16,  
1/2, 9/16, 19/32, 5/8, 21/32, 11/16, 3/4,  
13/16, and 7/8. 5-1/2 inch extension  
bar. 10-1/2 inch reversible ratchet,  
a movement of the thumb reverses  
its action. In steel case, 11 by 2-7/8  
by 1-3/4 inches.  
★ NET COMPLETE SET...\$4.70

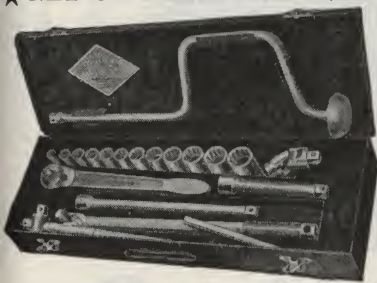


Fig. 4913. Mfrs. S320  
1/2 INCH SQUARE DRIVE. 12  
Sockets, size opening, inches, 7/16,  
1/2, 9/16, 19/32, 5/8, 21/32, 11/16, 3/4,  
13/16, 7/8, 15/16 and 1. 7 attach-  
ments: 10-1/2 inch reversible ratch-  
et; 17 inch, long speeder with  
door-knob grip; 15 inch flex handle  
with 'T' bar; 11 inch sliding 'T'  
handle; 5-1/2 inch, short extension  
bar; 10-1/2 inch, long extension bar;  
Universal joint. Steel case 18-1/2  
by 6-1/4 by 2-3/8 inches.  
★ NET COMPLETE SET...\$9.98

## WILLIAMS' 12-POINT SUPERSOCKET WRENCH SETS

Chrome-Plated Over Nickel. Sockets have 12 point double hexagon open-ings which will rotate a nut completely where the handle can be swung only 30 degrees—less than one tenth of a full turn. Made from high ten-sile steel, Chrome-Alloy and heat-treated for maximum toughness and strength. GUARANTEED AGAINST BREAKAGE.



Fig. 4096 (Mfrs. Set D20)  
STANDARD PATTERN  
Standard pattern. 1/2 inch square  
drive. For garage mechanics. 21  
pieces—13 double-hex sockets and 8  
tools. Set contains:  
Speeder, 14 1/2 inches long, with  
knurled revolving grips. Speeder,  
19 1/2 inches long, with knurled re-  
volving grips. Offset sliding handle,  
11 1/2 inches long, with knurled grip.  
Ratchet, 10 inches long, complete  
with plug-connector. Extension bar,  
5-1/2 inches long, with knurled re-  
volving grip. Extension bar, 10 1/2  
inches long, with knurled revolving  
grip. Universal joint. Flex handle,  
17 inches long. In strong steel box,  
20 by 6 by 3-1/4 inches.  
12-point sockets, size opening  
inches: 7/16, 1/2, 9/16, 19/32, 5/8,  
11/16, 3/4, 25/32, 13/16, 7/8, 15/16,  
31/32, and 1.

★ NET COMPLETE SET \$22.78



Fig. 4097 (Mfrs. Set A50)

HEAVY DUTY PATTERN  
3/4 inch square drive. 15 pieces—  
10 double-hex sockets and 5 attach-  
ments. Set contains: Sliding T  
handle, 17 1/2 inches. Ratchet, 18 1/2  
inches. Extension bar, 8 inches.  
Extension bar, 15 1/2 inches. Universal  
joint. Steel box, 19 3/4 by 5 1/4 by 2 3/4  
inches.  
12-point sockets, size opening  
inches: 1-1/16, 1-1/8, 1-3/16, 1-1/4,  
1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-5/8, and  
1-3/4.

★ NET COMPLETE SET \$27.67

## EXTRA HEAVY DUTY PATTERN

Fig. 4610 (Mfrs. Set 75)

11 extra heavy sockets, 12 point  
openings, 1 1/16, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 5/8, 1 3/4, 2, 2 1/8 and 2 3/8 inches. 5  
extra heavy accessories.

★ NET COMPLETE SET \$39.84

## WILLIAMS' 12-POINT 'CROMAL' WRENCHES

Different opening in each head.  
Extra reach. Short swing. No slip.  
Extra strong. Thin head walls. Hex  
nuts can be completely rotated  
where the swing of the wrench is  
limited to 30 degrees — less than  
1/10th of a full turn.

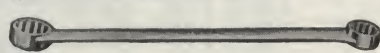


Fig. 4914

### 15 DEGREE OFFSET

Mfrs. No.	Size Opening Inches	Length Inches	Extreme Length Approx.	LIST EACH
17721	5/16 & 3/8	7	7-3/8	\$ .60
17723	3/8 & 7/16	7-3/8	7-3/8	\$ .74
17023	13/32 & 1/2	7-3/4	7-3/4	\$ .74
17725	7/16 & 1/2	7-3/4	7-3/4	\$ .74
17725B	1/2 & 9/16	8-1/4	8-1/4	\$ .77
17025	1/2 & 19/32	8-1/4	8-1/4	\$ .77
17727	9/16 & 5/8	9-1/4	9-1/4	\$ .82
17729	5/8 & 3/4	10-1/2	10-1/2	\$ .91
17029	11/16 & 25/32	10-1/2	10-1/2	\$1.00
17731A	3/4 & 7/8	12	12	\$1.05
17733	7/8 & 1	13-3/4	13-3/4	\$1.43
17033C	15/16 & 1	13-3/4	13-3/4	\$1.43
17034	7/8 & 1-1/16	15-1/2	15-1/2	\$2.25
17034A	15/16 & 1-1/16	15-1/2	15-1/2	\$2.25
17037	1-1/16 & 1-1/4	17-1/4	17-1/4	\$2.51
17039	1-1/4 & 1-7/16	19	19	\$2.88

Mfrs. 176 SET. Six wrenches in  
strong canvas bag. Size openings,  
inches: 3/8 and 7/16; 1/2 and 19/32;  
9/16 and 5/8; 11/16 and 25/32; 3/4  
and 7/8; 15/16 and 1.

LIST SET .....\$4.71

DISCOUNT .....40-5% OFF

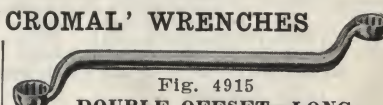


Fig. 4915

### DOUBLE OFFSET—LONG PATTERN

Mfrs. No.	Size Opening Inches	Approx. Length Inches	Handle Offset At Head	LIST EACH
18021	5/16 & 1 1/2	7-1/2	1 1/2	\$ .60
18723	3/8 & 7/16	8-1/2	1 1/2	\$ .74
18023	1/2 & 9/16	8-3/4	1 1/2	\$ .74
18725	7/16 & 1/2	8-3/4	1 1/2	\$ .74
18725B	1/2 & 9/16	9	1 1/2	\$ .77
18025	1/2 & 19/32	9	1 1/2	\$ .77
18727	9/16 & 5/8	9-3/4	1 1/2	\$ .82
18729	5/8 & 3/4	11	1 1/2	\$ .91
18029	11/16 & 25/32	11	1 1/2	\$1.00
18731A	3/4 & 7/8	12-1/2	1 1/2	\$1.05
18033	7/8 & 1	13-1/2	1 1/2	\$1.24
18733	15/16 & 1	14-1/2	1 1/2	\$1.43
18733C	15/16 & 1	14-1/2	1 1/2	\$1.43
18034	7/8 & 1-1/16	14-1/2	1 1/2	\$2.25
18034A	15/16 & 1-1/16	14-1/2	1 1/2	\$2.25
18037	1-1/16 & 1-1/4	16-1/2	1 1/2	\$2.51
18039	1-1/4 & 1-7/16	18-1/2	1 1/2	\$2.88
186	Set of 6, 3/8 to 1			\$4.71
185	Set of 5, 5/16 to 1-1/4			\$4.71

### DOUBLE OFFSET—SHORT PATTERN

Fig. 4916

Mfrs. No.	Size Opening Inches	Approx. Length Inches	Handle Offset At Head	LIST EACH
19723	3/8 & 7/16	4-1/2	3/8	\$ .70
19725	1/2 & 9/16	5-1/2	3/8	\$ .74
19725B	1/2 & 9/16	5-1/2	3/8	\$ .74
19727	5/8 & 3/4	6	1-1/8	\$ .82

193 Set of 3, 3/8 to 5/8 .....\$1.82

DISCOUNT .....40-5% OFF

## 12-POINT SOCKET SPECIFICATIONS

Size Opening Inches	U. S. Std. Hex Nut	Hex Head Cap Screws	SAE Std. Hex Nut	Amer. Reg. & Jam Nuts	Size Opening Inches	U. S. Std. Hex Nut	Hex Head Cap Screws	SAE Std. Hex Nut	Amer. Reg. & Jam Nuts	Size Opening Inches	U. S. Std. Hex Nut	Hex Head Cap Screws	SAE Std. Hex Nut	Amer. Reg. & Jam Nuts
5/16	1/8	1/8	....	....	11/16	3/8	1/2	1/2	7/16	1-1/8	....	7/8	....	3/4
3/8	3/16	3/16	....	10	3/4	7/16	....	....	1-1/4	3/4	....	....	....	....
13/32	3/16	....	....	....	25/32	7/16	....	....	1-5/16	....	1	....	....	7/8
7/16	....	1/4	1/4	1/4	13/16	....	9/16	....	1-3/8	....	1-1/8	....	....	....
1/2	1/4	5/16	5/16	5/16	7/8	1/2	5/8	9/16	9/16	1-7/16	7/8	1	....	....
9/16	....	3/8	3/8	5/16	15/16	....	....	5/8	....	1-1/2	....	1-1/4	....	1
19/32	5/16	....	....	....	31/32	9/16	....	....	....	1-5/8	1	1-3/8	1-1/8	....
5/8	....	7/16	7/16	3/8	1	....	3/4	11/16	5/8	1-3/4	....	....	....	....
21/32	....	....	....	....	1-1/16	5/8	....	3/4	....					



**WILLIAMS SUPERECTOR  
REVERSIBLE RATCHET WRENCH  
WITH QUADRUPLE PAWLS AND DROP-  
FORGED HANDLE. FULLY GUARANTEED.**

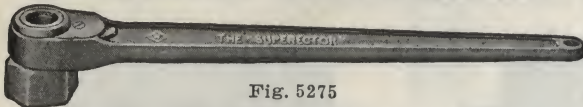


Fig. 5275

WRENCH ONLY. Built for rapid operation in the most severe service such as bridge, structural and other work. Instantly reversible in action. Ample leverage for the hardest jobs. Quadruple Pawls: Increased bearing and strength by 2 pawls engaging 2 teeth for both ON and OFF rotation of nuts; all 4 pawls are of hardened tool steel. Handle is drop-forged from special, high grade steel. 20 teeth in all socket gears. All wrenches will rotate nuts with only an 18° swing of the wrench. Shifter-lever, when in neutral, completely disengages all pawls for easy insertion and removal of the socket.

Length Inches	Mfrs. No.	For Service	LIST EACH
<b>WRENCH—NO SOCKETS</b>			
24	E1-24	Standard	\$12.60
36	E1-36	Standard	\$19.80
36	E2-36	Heavy	\$25.20
48	E2-48	Heavy	\$32.40
53	E3-48	Extra Heavy	\$50.40



Fig. 5276 Hexagon



Fig. 5277 Square

**SOCKETS ONLY—Hex and Square**

Opening, Size Across Flats	Mfrs. No. Hex Sock- et	Mfrs. No. Sqr. Sock- et	U.S. Std. Nut and Amer. Std. Heavy nut, Hex & Sqr.	S.A.E. Std. Nut, Hex Only	Amer. Std. and Jam Nuts, Hex & Sqr.	LIST Hex or Sqr. Sock- et Only
<b>E1 SOCKETS Fit E1-24 and E1-36 Wrenches ONLY</b>						
1	E1-617	E1-416	5/8	11/16	5/8	\$4.85
1-1/16	E1-617	E1-417	3/4	3/4		\$4.85
1-1/8	E1-618	E1-418			3/4	\$4.90
1-1/4	E1-620	E1-420	3/4	7/8		\$5.00
1-5/16	E1-621	E1-421			7/8	\$5.10
1-7/16	E1-623	E1-423	7/8	1		\$5.20
1-1/2	E1-624	E1-424			1	\$5.30
1-5/8	E1-626	E1-426	1	1-1/8		\$5.40
1-7/8	E1-629	E1-429	1-1/8	1-1/4		\$5.65
2	E1-630	E1-430			1-1/4	\$5.75
2-3/16	E1-632	E1-432	1-1/4	1-3/8		\$5.90
2-1/4	E1-635	E1-435	1-3/8	1-1/2		\$6.20
	E1-636	E1-436			1-1/2	\$6.40
<b>E2 SOCKETS Fit E2-36 and E2-48 Wrenches ONLY</b>						
2	E2-632	E2-432	1-1/4	1-3/8		\$9.70
2-3/16	E2-635	E2-435	1-3/8	1-1/2		\$10.00
2-3/8	E2-638	E2-438	1-1/2			\$10.40
2-9/16	E2-641	E2-441	1-5/8			\$10.80
2-3/4	E2-644	E2-444	1-3/4			\$11.30
2-15/16	E2-647	E2-447	1-7/8			\$11.85
3-1/8	E2-650	E2-450	2			\$12.40
<b>E3 SOCKETS Fit E3-48 Wrench ONLY</b>						
3-1/8	E3-650	E3-450	2			\$20.10
3-1/2	E3-656	E3-456	2-1/4			\$20.80
3-7/8	E3-662	E3-462	2-1/2			\$21.60
4-1/4	E3-668	E3-468	2-3/4			\$22.55
4-5/8	E3-674	E3-474	3			\$23.65

E2 SOCKETS Fit E2-36 and E2-48 Wrenches ONLY						
2	E2-632	E2-432	1-1/4	1-3/8		\$9.70
2-3/16	E2-635	E2-435	1-3/8	1-1/2		\$10.40
2-3/8	E2-638	E2-438	1-1/2			\$10.40
2-9/16	E2-641	E2-441	1-5/8			\$10.80
2-3/4	E2-644	E2-444	1-3/4			\$11.30
2-15/16	E2-647	E2-447	1-7/8			\$11.80
3-1/8	E2-650	E2-450	2			\$12.40
E3 SOCKETS Fit E3-48 Wrench ONLY						
3-1/8	E3-650	E3-450	2			\$20.10
3-1/2	E3-656	E3-456	2-1/4			\$20.80
3-7/8	E3-662	E3-462	2-1/2			\$21.60
4-1/4	E3-668	E3-468	2-3/4			\$22.55
4-5/8	E3-674	E3-474	3			\$23.65
DISCOUNT .....					50%	OFF

**DISCOUNT** { 1 to 5.....40% OFF  
5 or More.....45% OFF

**WILLIAMS' "SUPERRENCH" WRENCHES**  
Engineers' Pattern—15° Angle—Double Head

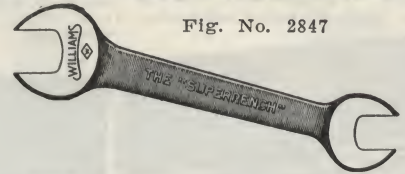
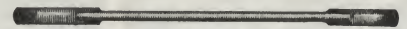


Fig. No. 2847



**THIN HEADS AND NARROW JAWS**

Forged from chrome-alloy steel. Furnished heat-treated and chrome-plated, with heads buffed.

**LIST PRICES EACH**

Num- ber	For U. S. Std. Nuts; Size Bolts	For Hex. Head Cap Screws; Diam. Screws	For S.A.E. Std. Nuts and Cap Screws; Diam. Screws	Openings Milled	Ex- treme Length, Approx.	Thick- ness Heads	Chrome Plated List Each
1721	1/8	1/8 & 3/16	1/8 & 3/16	5/16 & 3/8	4 1/4	13/64	\$0.58
1021	1/8	1/8 & 3/16	1/8 & 3/16	5/16 & 3/8	4 1/4	13/64	\$0.58
1722	1/8	1/8 & 1/4	1/8 & 1/4	5/16 & 1/2	4 1/4	13/64	\$0.58
1723	1/8	5/16 & 1/4	5/16 & 1/4	5/16 & 1/2	4 1/4	13/64	\$0.58
1022	1/8 & 1/4	1/8 & 1/2	1/8 & 1/2	5/16 & 1/2	4 1/4	13/64	\$0.69
1023	1/8 & 1/4	1/8 & 1/2	1/8 & 1/2	5/16 & 1/2	4 1/4	13/64	\$0.69
1723A	1/8 & 1/4	1/8 & 1/2	1/8 & 1/2	5/16 & 1/2	4 1/4	13/64	\$0.69
1024	3/16 & 1/2	3/16 & 1/2	3/16 & 1/2	5/16 & 1/2	5 1/2	15/64	\$0.82
1725	1/4	1/4 & 3/8	1/4 & 3/8	1/2 & 3/4	5 1/2	15/64	\$0.82
1725A	1/4	1/4 & 3/8	1/4 & 3/8	1/2 & 3/4	5 1/2	15/64	\$0.82
1725B	1/4	1/4 & 3/8	1/4 & 3/8	1/2 & 3/4	5 1/2	15/64	\$0.82
1025	1/4 & 3/8	1/4 & 3/8	1/4 & 3/8	1/2 & 3/4	5 1/2	15/64	\$0.82
1726	1/4 & 3/8	1/4 & 3/8	1/4 & 3/8	1/2 & 3/4	6 1/2	15/64	\$1.00
1026	1/4 & 3/8	1/4 & 3/8	1/4 & 3/8	1/2 & 3/4	6 1/2	15/64	\$1.00
1727	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	6 1/2	15/64	\$1.00
1027	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	6 1/2	15/64	\$1.00
1027C	3/8	3/8 & 1/2	3/8 & 1/2	3/4 & 1	6 1/2	15/64	\$1.00
1728	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	7 3/4	15/64	\$1.24
1028	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	7 3/4	15/64	\$1.24
1028S	3/8	3/8 & 1/2	3/8 & 1/2	3/4 & 1	7 3/4	15/64	\$1.24
1729	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	7 3/4	15/64	\$1.24
1029	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	7 3/4	15/64	\$1.24
1030	3/8 & 1/2	3/8 & 1/2	3/8 & 1/2	3/4 & 1	7 3/4	15/64	\$1.24
1731	1/2	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1731A	1/2	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1031	1/2 & 3/4	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1731B	1/2 & 3/4	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1032	1/2 & 3/4	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1033A	1/2	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1033	1/2 & 3/4	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	9 1/4	15/64	\$1.65
1733	1/2	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	10 3/4	15/64	\$2.25
1033C	1/2	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	10 3/4	15/64	\$2.25
1034	1/2 & 3/4	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	10 3/4	15/64	\$2.25
1034A	1/2 & 3/4	1/2 & 3/4	1/2 & 3/4	1 & 1 1/4	10 3/4	15/64	\$2.25
1734	3/4	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	10 3/4	15/64	\$2.25
1035	3/4 & 1	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	10 3/4	15/64	\$2.25
1735	3/4 & 1	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	12 1/4	15/64	\$3.15
1036	3/4 & 1	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	12 1/4	15/64	\$3.15
1736	3/4 & 1	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	12 1/4	15/64	\$3.15
1037	3/4 & 1	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	12 1/4	15/64	\$3.15
1737	3/4 & 1	3/4 & 1	3/4 & 1	1 1/4 & 1 3/4	12 1/4	15/64	\$3.15

**DISCOUNT** { 1 to 5.....43% OFF  
6 or More.....48% OFF

**CHECK NUT OR "THIN" WRENCHES**



Fig. No. 2918

Automotive design, 15° angle, double head, for check jam or lock nuts, etc. Not designed for severe service. Carbon steel, drop forged. Finished in black enamel, heads bright.

Num- ber	For U. S. Std. Nuts; Size Bolts	For Hex. Head Cap Screws; Diam. Screw	For S.A.E. Std. Nuts and Cap Screws; Size Bolt	Openings Milled	Ex- treme Length	Thick- ness Heads	Fin- ished (New) List Each
623	3/8 & 1/2	3/8	3/8	13/32 & 1/2	4 3/4	5/32	\$0.50
625	1/2 & 3/4	1/2	1/2	1/2 & 13/16	4 3/4	5/32	.50
627	3/4 & 1	3/4	3/4	13/16 & 1 1/16	6	5/16	.64
629	1 & 1 1/4	1	1	1 1/16 & 1 1/8	6 3/4	3/16	.72
631	1 1/2 & 1 3/4	1 1/2	1 1/2	1 1/8 & 1 1/4	7 1/2	3/8	.80
633	1 3/4 & 2	1 3/4	1 3/4	1 1/4 & 1 1/2	8 3/4	1/2	1.12
634	2 & 2 1/4	2	2	1 1/2 & 1 3/4	8 3/4	1/2	1.12

**DISCOUNT** { 1 to 5.....40% OFF  
6 or More.....45% OFF



WILLIAMS' ENGINEERS' WRENCHES

15° Angle, Single Head

Carbon Steel, Drop Forged



Fig. No. 1379

LIST PRICES EACH

No.	For U. S. Std. Nut; Size Bolt	For Hex. Head Cap Screw; Diam. Screw	For S.A.E. Std. Nut and Cap Screw; Size Bolt	Opening Milled	Extreme Length	Thickness Head	Finished List, Each
00	1/8	3/16		5/16	3 1/2	7/32	\$ .28
700		3/16		5/16	4	1/4	.30
0		3/16		15/32	4	1/4	.30
701		3/16	1/4	7/16	4 5/8	9/32	.36
1	1/4	5/16	5/16	7/16	4 5/8	9/32	.36
702		5/16	5/8	9/16	5 1/2	5/16	.44
2	5/16			15/32	5 1/2	5/16	.44
703		7/16	7/16	9/8	6 3/8	11/32	.52
3	3/8			11/16	6 3/8	11/32	.52
704		3/8	1/2	3/4	7 1/4	3/8	.64
4	1/2			25/32	7 1/4	3/8	.64
705		9/16	9/16	1 1/16	8 1/8	7/16	.76
5	5/8			31/32	8 1/8	7/16	.76
706		3/4	1 1/8	1 1/8	9 1/4	1 1/8	.92
7	3/4			1 1/8	10 1/2	9/16	1.14
707		3/4	1 1/2	1 1/2	10 1/2	9/16	1.14
8	3/4		1 1/2	1 1/2	12	5/8	1.50
708A		1 1/8	1 1/8	1 1/8	12	5/8	1.50
9	7/8		1	1 7/8	13 1/2	25/32	2.30
709		1 1/4	1 1/4	1 1/4	13 1/2	25/32	2.30
10	1		1 1/2	1 1/2	15	3/4	3.20
11	1 1/8		1 1/2	1 1/2	16 1/4	7/8	4.20
12	1 1/4		1 3/8	2	18 1/4	15/16	5.70

DISCOUNT { 1 to 5 .....40% OFF  
                  { 6 or More .....45% OFF

WILLIAMS' "VOLUME" WRENCH SETS

For garage, machine shop and domestic use. Six wrenches with 12 different openings covering all the popular S. A. E. and U. S. standard nuts and cap screws. New pattern with thin heads and slim jaws.



Fig. 3822

SET 'VCU' CARBON STEEL UNFINISHED

Drop forged and hardened all over to insure lasting service under severe use. Milled openings, smooth surface. Suggested resale price, 98c.

★ NET EACH SET, \$0.83

Fig. 3824

SET 'VA-6' CHROME-ALLOY STEEL

Drop forged and are strong, tough and dependable. Amazing strength. Heads are thin and narrow, with slender jaws for work in close quarters. Heat-treated to insure a uniform product and lasting service under hard use. Chrome-plated for attractive and lasting finish. Heads bright. Metal holder.

★ NET EACH SET, \$2.46

TAPPET WRENCH SET

Fig. H-75

Drop forged from chrome-vanadium steel. 2 of each size wrench in set.

Size of Opening, Inches	Thickness of Head, Inches	Length Overall, Inches
7/16 & 17/32	5/32	7-1/4
1/2 & 9/16	5/32	8
5/8 & 11/16	7/32	8

★ NET SET OF 6, \$1.95

WILLIAMS' ENGINEERS' WRENCHES

15° Angle Double Head

Carbon Steel, Drop Forged

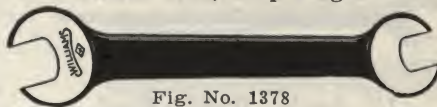


Fig. No. 1378

LIST PRICES EACH

No.	For U. S. Std. Nuts; Size Bolt	For Hex. Head Cap Screws; Diam. Screw	For S.A.E. Std. Nut and Cap Screws; Size Bolt	Openings Milled	Extreme Length Ap'rx	Finished List Each
721	1/8	3/16		5/16 & 3/8	4	\$ .34
21	1/8 & 3/16	1/8		5/16 & 13/32	4	.34
722	1/8	1/4		5/16 & 1/2	4 1/4	.42
22	1/8 & 1/4	1/8 & 1/4	1/4	5/16 & 1/2	4 1/4	.42
723	1/8	1/4		5/16 & 1/2	4 1/4	.42
723A	3/16	1/4		5/16 & 1/2	4 5/8	.42
23	3/16 & 1/4	3/16	1/4	5/16 & 1/2	4 5/8	.42
724	3/16	5/16		5/16 & 1/2	5	.50
24	3/16 & 5/16	3/16	5/8	5/16 & 1/2	5	.50
725		1/4	1/4	5/16 & 5/8	5	.50
725A		1/4	1/4	5/16 & 5/8	5 1/2	.50
725B	1/4	5/16	5/16	5/16 & 5/8	5 1/2	.50
726	1/4	5/16	5/16	5/16 & 7/16	6	.62
26	1/4 & 5/16	5/16	5/16	5/16 & 7/16	6	.62
727		3/8	3/8	5/16 & 7/16	6 1/2	.62
27C		3/8	3/8	5/16 & 7/16	6 1/2	.62
27	5/16 & 3/8	3/8	3/8	5/16 & 7/16	7	.74
728		3/8	3/8	5/16 & 7/16	7	.74
28	5/16 & 7/16	7/16	7/16	5/16 & 7/16	7	.74
729		7/16	7/16	5/16 & 7/16	7 1/2	.74
28S		7/16	7/16	5/16 & 7/16	7 1/2	.74
29	3/8 & 7/16	7/16	7/16	5/16 & 7/16	8	.90
730		7/16	7/16	5/16 & 7/16	8	.90
730A		7/16	7/16	5/16 & 7/16	8	.90
30	3/8 & 7/16	7/16	7/16	5/16 & 7/16	8 3/4	.90
731		7/16	7/16	5/16 & 7/16	8 3/4	.90
731A		7/16	7/16	5/16 & 7/16	8 3/4	.90
31	7/16 & 7/16	7/16	7/16	5/16 & 7/16	8 3/4	.90
731B		7/16	7/16	5/16 & 7/16	9 1/2	1.10
32	7/16 & 7/16	7/16	7/16	5/16 & 7/16	9 1/2	1.10
732		7/16	7/16	5/16 & 7/16	9 1/2	1.10
33A	1 1/2	3/8	3/8	5/16 & 1 1/2	9 1/2	1.10
33	1 1/2 & 3/8	3/8	3/8	5/16 & 1 1/2	9 1/2	1.10
733		3/8	3/8	5/16 & 1 1/2	9 1/2	1.10
33C		3/8	3/8	5/16 & 1 1/2	9 1/2	1.10
34	1 1/2 & 3/8	3/8	3/8	5/16 & 1 1/2	10 3/4	1.36
734		3/8	3/8	5/16 & 1 1/2	10 3/4	1.36
35	1 1/2 & 3/8	3/8	3/8	5/16 & 1 1/2	10 3/4	1.36
735		3/8	3/8	5/16 & 1 1/2	12	1.92
36	5/8 & 3/4	1	1 1/16	5/16 & 1 1/16	12	1.92
736		3/4	1 1/16	5/16 & 1 1/16	12	1.92
37	5/8 & 3/4	1	1 1/16	5/16 & 1 1/16	12	1.92
737		3/4	1 1/16	5/16 & 1 1/16	13 1/2	2.80
38	5/8 & 3/4	1 1/8	1 1/8	5/16 & 1 1/8	13 1/2	2.80
739		1 1/8	1 1/8	5/16 & 1 1/8	13 1/2	2.80
39	3/4 & 7/8	1	1 1/8	5/16 & 1 1/8	15 1/2	3.80
40	3/4 & 7/8	1	1 1/8	5/16 & 1 1/8	15 1/2	3.80
41	7/8 & 1	1 1/8	1 1/8	5/16 & 1 1/8	15 1/2	3.80

DISCOUNT { 1 to 5 .....40% OFF  
                  { 6 or More .....45% OFF

WILLIAMS' DOUBLE HEAD SET SCREW WRENCHES

22 1/2° Angle. Carbon Steel, Drop Forged

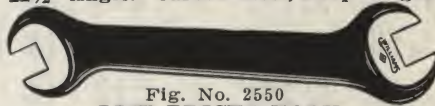


Fig. No. 2550

LIST PRICES EACH

Mfrs. No.	Milled Openings for Set Screws	Extreme Length Inches	Thickness Head Inches	Finished List Each
523	3/16 & 1/4	3 1/2	7/16	\$ .40
524	3/16 & 5/16	4 1/4	9/32	.48
525	1/4 & 5/16	4 1/4	9/32	.48
526	1/4 & 3/8	5	11/32	.58
527	5/16 & 3/8	5	11/32	.58
528	5/16 & 7/16	5 3/4	3/8	.70
529	3/8 & 7/16	5 3/4	3/8	.70
530	3/8 & 1/2	6 3/8	7/16	.90
531	3/8 & 1/2	6 3/8	7/16	.90
532	7/8 & 9/16	7 1/2	1/2	1.08
533	7/8 & 9/16	7 1/2	1/2	1.08
534	7/8 & 3/4	8 1/2	9/16	1.30
535	7/8 & 3/4	8 1/2	9/16	1.30
536	9/8 & 3/4	9 3/4	5/8	1.60
537	9/8 & 3/4	9 3/4	5/8	1.60
538	1 1/8 & 7/8	11	11/16	2.00
539	1 1/8 & 7/8	11	11/16	2.00
540	3/4 & 1	12 1/2	3/4	2.60
541	3/4 & 1	12 1/2	3/4	2.60

DISCOUNT { 1 to 5 .....40% OFF  
                  { 6 or More .....45% OFF



WILLIAMS' CONSTRUCTION WRENCHES



Fig. 2556

15° Angle—Carbon Steel

Mfrs. No.	For U. S. Standard Nut; Size Bolt	Open- ing Milled Inches	Extreme Length Inches	Thick- ness Head Inches	List Each Hard- ened
201	1/4	3/8	8	3/8	\$ .75
202	5/16	1/2	8	3/8	.75
203	3/8	11/16	12	1/2	.95
204	7/16	3/4	12	1/2	.95
205	1/2	7/8	14 1/2	1 1/2	1.20
206	9/16	1 1/2	14 1/2	1 1/2	1.20
207	5/8	1 1/2	17	1 1/2	1.55
208	3/4	1 3/4	19	1 1/2	2.05
209	7/8	1 1/2	21	1 3/4	2.70
210	1	1 3/4	23	1 3/4	3.60
211	1-1/8	1 3/4	25	1 3/4	5.30
212	1-1/4	2	25	1 3/4	5.30

DISCOUNT { 1 to 5 ..... 40% OFF  
6 or More ..... 45% OFF

WILLIAMS' CAR WRENCHES

22 1/2° Angle, Double Head. Long Leverage For U. S. Standard Nuts. Broached, case-hardened all over. Heads are not ground.



Fig. 2554

No.	For Bolts, Size, In.	Openings	Lgth., In.	Thickness Heads, In.	List Each
367	3/8 & 1/2	3/8 & 1/2	12	1/2 & 3/4	\$1.50
370	1/2 & 3/4	1/2 & 3/4	19	3/4 & 1	2.50
371	3/4 & 1	3/4 & 1	20	1 & 1 1/4	3.10
373	1 & 1 1/4	1 & 1 1/4	20	1 1/4 & 1 1/2	3.10
374	3/4 & 1	1 1/2 & 1 3/4	21	1 1/2 & 1 3/4	3.70
376	1 & 1 1/4	1 1/2 & 1 3/4	21	1 1/2 & 1 3/4	3.70
377	3/4 & 1	1 1/2 & 1 3/4	22	1 1/2 & 1 3/4	4.50
379	1 & 1 1/4	1 1/2 & 1 3/4	22	1 1/2 & 1 3/4	4.50
380	1 & 1 1/4	1 1/2 & 1 3/4	23	1 1/2 & 1 3/4	5.30
382	1 & 1 1/4	1 1/2 & 1 3/4	23	1 1/2 & 1 3/4	5.30
383	1 & 1 1/4	1 1/2 & 1 3/4	24	1 1/2 & 1 3/4	6.30
385	1 1/4 & 1 1/2	1 1/2 & 1 3/4	24	1 1/2 & 1 3/4	6.30
387	1 1/4 & 1 1/2	1 1/2 & 1 3/4	25	1 1/2 & 1 3/4	9.00
389	1 1/4 & 1 1/2	1 1/2 & 1 3/4	25	1 1/2 & 1 3/4	9.00

DISCOUNT { 1 to 5 ..... 40% OFF  
6 or More ..... 45% OFF

WILLIAMS' STRUCTURAL WRENCHES Carbon Steel. Straight Opening. Offset Handle

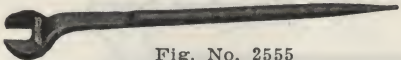


Fig. No. 2555

For U. S. Standard Nuts. Milled, case-hardened all over.

Mfrs. No.	For U. S. Std. Nut; Size Bolt	Open- ing	Ex- treme Length	Thick- ness Head	Handle Offset At Head	Handle Offset End	List Each Hard- ened
901	1/4	17/32	9 1/4	11/32	9/16	1 1/4	\$ .80
902	5/16	5/8	9 1/4	11/32	9/16	1 1/4	.80
903	3/8	23/32	12	7/16	3/4	1 11/16	1.05
904	7/16	13/16	12	7/16	3/4	1 11/16	1.05
905	1/2	23/32	14 1/2	17/32	7/8	1 7/8	1.40
906	9/16	1	14 1/2	17/32	7/8	1 7/8	1.40
907	5/8	1 1/4	17	1	1	2 3/8	1.85
908	3/4	1 1/4	19	1 1/16	1 1/8	2 3/4	2.35
909	7/8	1 1/2	21	3/4	1 1/4	3 1/8	3.00
910	1	1 1/2	23	13/16	1 1/2	3 3/8	4.10
910A	1-1/8	1 1/2	23	13/16	1 1/2	3 3/8	4.10
911	1-1/8	1 1/2	25	7/8	1 1/2	3 11/16	6.15
912	1-1/4	2 1/2	25	7/8	1 1/2	3 11/16	6.15

DISCOUNT { 1 to 5 ..... 40% OFF  
6 or more ..... 45% OFF

FAVORITE REVERSIBLE RATCHET WRENCH

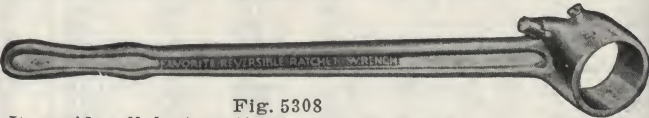


Fig. 5308

It avoids all lost motion, saves time and reduces the cost of nut turning. It works on a quick, straight-ahead ratchet movement, and the socket form of head is not removed from the nut until the operation is completed. Reverse motion is instantaneous by simply turning the pawl. It can be used in narrower places than an ordinary wrench. The wrench heads are interchangeable, as shown. The opening in the head allows the bolt to pass clear through. It is built strong for rough usage.

Handle	Handle Length, Inches	Take Head No.	To Fit U. S. Std. Nuts, Square	To Fit U. S. Std. Nuts, Hexagon	Exact Size Square Opening, Inches	Exact Size Hexagon Opening, Inches	LIST Head Only	LIST Handle Only	LIST Handle and One Head	Head Sent If None Is Specified
A	15	1	1/4 & 3/8	17/32 & 11/16	17/32 & 11/16	17/32 & 11/16	\$5.00	\$5.00	\$10.00	
A	15	2	1/2 & 3/4	1 1/2 & 1 1/4	1 1/2 & 1 1/4	1 1/2 & 1 1/4	\$5.00	\$5.00	\$10.00	
A	15	3	3/4 & 1	1 3/4 & 1 1/2	1 3/4 & 1 1/2	1 3/4 & 1 1/2	\$5.00	\$5.00	\$10.00	
A	15	4	1 & 1 1/4	2 & 1 3/4	2 & 1 3/4	2 & 1 3/4	\$5.00	\$5.00	\$10.00	
A	15	5	1 1/4 & 1 1/2	2 1/4 & 2 1/2	2 1/4 & 2 1/2	2 1/4 & 2 1/2	\$5.00	\$5.00	\$10.00	#5
B	24	20	3/4 & 1	1 1/2 & 1 1/4	1 1/2 & 1 1/4	1 1/2 & 1 1/4	\$6.00	\$7.00	\$13.00	
B	24	21	1 & 1 1/4	2 & 1 3/4	2 & 1 3/4	2 & 1 3/4	\$6.00	\$7.00	\$13.00	#21
B	24	22	1 1/4 & 1 1/2	2 1/4 & 2 1/2	2 1/4 & 2 1/2	2 1/4 & 2 1/2	\$6.00	\$7.00	\$13.00	
B	24	23	1 1/2 & 1 3/4	2 1/2 & 2 3/4	2 1/2 & 2 3/4	2 1/2 & 2 3/4	\$6.00	\$7.00	\$13.00	
C	27	30	1 & 1 1/4	2 & 1 3/4	2 & 1 3/4	2 & 1 3/4	\$8.00	\$9.00	\$17.00	
C	27	31	1 1/4 & 1 1/2	2 1/4 & 2 1/2	2 1/4 & 2 1/2	2 1/4 & 2 1/2	\$8.00	\$9.00	\$17.00	
C	27	32	1 1/2 & 1 3/4	2 1/2 & 2 3/4	2 1/2 & 2 3/4	2 1/2 & 2 3/4	\$8.00	\$9.00	\$17.00	#32
C	27	33	1 3/4 & 2	2 3/4 & 3	2 3/4 & 3	2 3/4 & 3	\$8.00	\$9.00	\$17.00	
C	27	34	2 & 2 1/4	3 & 2 3/4	3 & 2 3/4	3 & 2 3/4	\$8.00	\$9.00	\$17.00	

FOR CAP SCREWS

A	15	7	5/8 & 3/4	7/8 & 1 1/8	\$5.00	\$5.00	\$10.00
A	15	3	3/8 & 1/2	1 1/8 & 1 1/4	\$5.00	\$5.00	\$10.00

FOR THE NEW AMERICAN STANDARD

A	15	6	1/2 & 3/4	3/4 & 1	\$5.00	\$5.00	\$10.00
B	24	24	3/4 & 1	1 1/4 & 1 1/2	\$6.00	\$7.00	\$13.00
B	24	25	1 & 1 1/4	1 1/2 & 1 3/4	\$6.00	\$7.00	\$13.00
C	27	35	1 1/4 & 1 1/2	1 3/4 & 2	\$8.00	\$9.00	\$17.00

DISCOUNT ..... 40% OFF

"CHAMPION" CHAIN PIPE WRENCHES

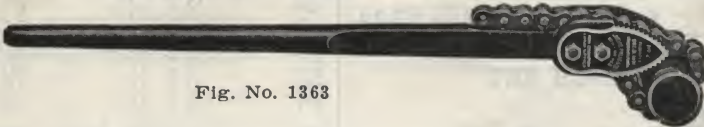


Fig. No. 1363

Superior in strength, wearing qualities and design. Adapted for iron pipe from 1/2 to 12 inches. All drop-forged from wrought steel. The equalized proportions throughout give greatest strength and durability with least possible weight. The handle will not bend. The teeth are of special design and are carefully tempered for file sharpening. Chain swings from the center either way, between double jaws, allowing quick adjustment.

LIST PRICE PER WRENCH

No.	Capacity, Inches	Length, In.	Weight, Lbs.	List Each
0	1/2 to 3/4	12 1/2	1 1/2	\$ 5.00
1	3/4 to 1 1/2	19 1/2	4 3/4	7.00
2	1 1/2 to 2 1/2	28	9	10.00
3	2 1/2 to 3 1/2	38 1/4	17 1/2	14.00
4	3 1/2 to 5	50 1/2	32	22.00
5	5 to 12	65	57	36.00

DISCOUNT, Wrenches...55% OFF

REPAIRS, LIST PRICE EACH

No.	Repair Chains	Extra Jaws	Extra Handles
0	\$1.50	\$2.00	\$1.50
1	2.00	3.50	2.00
2	3.00	5.50	3.00
3	5.00	8.00	4.50
4	9.00	11.00	8.00
5	15.00	15.00	13.00

DISCOUNT, Repairs...55% OFF



**NEW! GENUINE 'TRIMO ALLOY' PIPE WRENCHES NEW!**



A NEW THREE-TON Precision Made Pipe Wrench with a Frame that is 4½ Times Stronger and Has 116% More Strength in the Jaws and the Handle.

Fig. 1352-S Steel Handle



Fig. 1352-W Wood Handle  
Sizes: 6, 8, 10, 12 and 14 inch

Made of Heat Treated Chrome Molybdenum, Manganese, and Nickel Steel Alloys; giving wear resisting sharp teeth; and a deeper hardness without the brittleness of carbon, which makes this wrench stand up under unusual abuses. A safety feature is the ductility which permits a part to bend before it would break.

The swinging frame takes hold instantly and releases easily without locking or jamming. Replaceable movable and inserted jaws multiply the working life of the wrench over and over again. Interchangeable in all parts. Steel handle wrenches will be shipped unless wood handle wrenches are specified.

**LIST PRICES PER WRENCH**

Length Open, Inches	6	8	10	12	14	18	24	36	48
Takes Pipe, Inches	1/8 to 1/2	1/8 to 3/4	1/8 to 1	1/8 to 1 1/4	1/4 to 1 1/2	1/4 to 2	1/4 to 2 1/2	1/2 to 3 1/2	1 to 5
1352-S. Steel Handle...	\$1.90	\$2.20	\$2.85	\$3.35	\$3.85	\$5.50	\$9.50	\$20.00	\$30.00
1352-W. Wood Handle	\$2.00	\$2.30	\$3.15	\$3.60	\$4.25	.....	.....	.....	.....

**DISCOUNT (Wrenches)** { Lots of 1 to 5 ..... 68% OFF  
                                      { Lots of 6 or More ..... 70% OFF

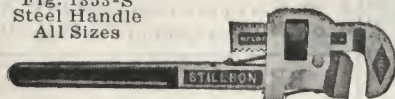
**REPAIR PARTS, LIST PRICES PER PART**

For Wrench Size, In.	Movable Jaws	Nuts	Insert Jaws & Pins	Frames & Pins	Springs & Pins	For Wrench Size, In.	Frame Pins	Jaw Pins	Steel Handles	Wood Hds. with Ferrule	Nut Guard per pair
6	\$0.65	\$0.15	\$0.50	\$0.45	\$0.03	6	\$0.03	\$0.03	\$1.00	\$0.23	\$0.15
8	.70	.15	.55	.55	.03	8	.03	.03	1.15	.25	.15
10	1.10	.20	.65	.70	.03	10	.04	.04	1.60	.30	.20
12	1.25	.25	.75	.75	.03	12	.04	.04	1.80	.35	.30
14	1.50	.30	.85	.80	.03	14	.04	.04	2.20	.36	.30
18	2.15	.35	.95	.95	.04	18	.04	.04	3.25	....	.35
24	3.50	.55	1.10	1.75	.04	24	.04	.04	5.15	....	.45
36	6.70	1.10	1.50	2.75	.04	36	.05	.05	10.50	....	.55
48	9.00	2.00	2.00	3.50	.04	48	.05	.05	17.00	....	.65

**DISCOUNT, Repair Parts** ..... 68% OFF

**GENUINE MASTER STILLSON PIPE WRENCHES**

Fig. 1353-S Steel Handle All Sizes



**New Improved**

Fig. 1353-W Wood Handle 6, 8, 10, 14 Inch



**LIST PRICES PER WRENCH**

Length Open, Inches	6	8	10	14	18	24	36	48
Takes Pipe, Inches	1/8 to 1/2	1/8 to 3/4	1/8 to 1	1/4 to 1 1/2	1/4 to 2	1/4 to 2 1/2	1/2 to 3 1/2	1 to 5
1353-S. Steel Handle	\$1.90	\$2.20	\$2.85	\$3.85	\$5.50	\$9.50	\$20.00	\$30.00
1353-W. Wood Handle	\$2.00	\$2.30	\$3.15	\$4.25	.....	.....	.....	.....

**DISCOUNT (Wrenches)** { Lots of 1 to 5 ..... 68% OFF  
                                      { Lots of 6 or More ..... 70% OFF

**STILLSON REPAIR PARTS, LIST PRICES PER PART**

Size	Bar with Spring	No. of Springs	Jaws	Frame and Pin	Adjusting Nuts	Wood Hds. with Ferrule	End Nuts	Frame Pins	Springs Rivets	Springs
6	\$1.00	1	\$0.65	\$0.45	\$0.15	\$0.23	\$0.15	\$0.03	\$0.01	\$0.10
8	1.15	1	.70	.55	.15	.25	.15	.03	.01	.10
10	1.60	3	1.10	.70	.20	.30	.20	.04	.02	.10
14	2.20	3	1.50	.80	.30	.36	.20	.04	.02	.10
18	3.25	3	2.15	.95	.35	....	....	.04	.02	.10
24	5.15	3	3.50	1.75	.55	....	....	.04	.02	.11
36	10.50	1	5.70	2.75	1.10	....	....	.05	.02	.13
48	17.00	1	9.00	3.50	2.00	....	....	.05	.02	.13

**DISCOUNT, Repairs** ..... 68% OFF

**'RIDGID' HEAVY DUTY PIPE WRENCHES**

Handle and unbreakable housing are of double-strength alloy metal. Heel jaw is replaceable.

Fig. 4922

S Numbers

Straight Wrench

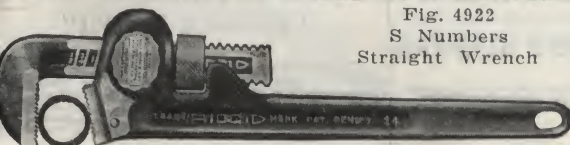


Fig. 4923  
E Numbers  
End Wrench

WRENCHES	Capacity	Weight	LIST	Straight Handle	Straight Handle	End Handle	End Handle	Rubber Grip	Hook Jaw	Heel Jaw	Pin	Coil Spring	Flat Spring	Nut List
Size	Inch	Pounds	EACH	Assem.	List	Assem.	List	List	List	List	List	List	List	List
E6	3/4	1/2	\$1.90	\$1.50	\$1.00	\$1.50	\$1.00	.....	\$0.65	\$0.35	\$0.03	\$0.03	\$0.20	\$0.15
E8	1	3/4	\$2.20	\$1.65	\$1.15	\$1.65	\$1.15	.....	\$0.70	\$0.40	\$0.03	\$0.03	\$0.20	\$0.15
E10	1-1/2	1-3/4	\$2.85	\$2.25	\$1.60	\$2.25	\$1.60	\$0.30	\$1.10	\$0.50	\$0.04	\$0.03	\$0.20	\$0.20
E14	2	3-1/4	\$3.85	\$2.85	\$2.20	\$2.85	\$2.20	\$0.40	\$1.50	\$0.60	\$0.04	\$0.03	\$0.30	\$0.30
E18	2-1/2	5	\$5.50	\$4.00	\$3.25	\$4.00	\$3.25	.....	\$2.15	\$0.70	\$0.04	\$0.04	\$0.40	\$0.35
E24	3	3-1/4	\$9.50	\$6.00	\$5.15	\$6.00	\$5.15	.....	\$3.50	\$0.80	\$0.04	\$0.04	\$0.50	\$0.55
E36	4-1/2	16-1/4	\$20.00	\$11.75	\$10.50	\$11.75	\$10.50	.....	\$5.70	\$1.10	\$0.05	\$0.04	\$0.60	\$1.10
E48	6	27-3/4	\$30.00	\$19.50	\$17.00	.....	.....	.....	\$9.00	\$2.00	\$0.05	\$0.04	\$0.80	\$2.00
E60	8	45	\$45.00	\$25.00	\$20.00	.....	.....	.....	\$15.00	\$4.00	\$0.05	\$0.04	\$1.20	\$3.00

**DISCOUNTS:** 1 to 5 ..... 68% OFF      6 or More ..... 70%      Repairs ..... 68% OFF



**"CRESTOLOY" CHROMIUM PLATED WRENCHES**  
**30% THINNER! 200% STRONGER! TOUGHER!**



Fig. 4153

Thin, strong wrenches of forged CRESTOLOY Steel. Crestoloy steel is harder, stronger and tougher than ordinary or some of the so-called "alloy" steels. Will stand a strain of over twice that required to break a regular Crescent wrench. 30% thinner. Lighter. Easier to handle. Heavy chromium plated finish.

Mfrs. No.	Size In.	Cap'y In.	Head Width	Tip of Jaws	LIST EACH	— PARTS, LIST EACH —			
						Jaws	Knurls	Pins	Spring
AC14	4	1/2	10 3/32	4 3/32	\$1.00	\$0.30	\$0.13	\$0.05	\$0.05
AC16	6	3/4	13 3/32	7 3/32	\$1.00	\$0.30	\$0.13	\$0.05	\$0.05
AC18	8	15/16	15 3/32	8 3/32	\$1.25	\$0.40	\$0.15	\$0.05	\$0.05
AC110	10	1 1/8	18 3/32	12 3/32	\$1.50	\$0.50	\$0.20	\$0.05	\$0.05
AC112	12	1 5/16	24 3/32	15 3/32	\$2.00	\$0.75	\$0.26	\$0.10	\$0.12
AC115	15	1 11/16	28 3/32	20 3/32	\$3.00	\$1.10	\$0.30	\$0.10	\$0.15
AC124	24	2 7/16	1 13 3/32	28 3/32	\$7.50	\$2.00	\$0.40	\$0.15	\$0.05

DISCOUNTS		
	1 to 12.....	20% OFF
	13 to 143.....	33-1/3% OFF
	144 or More.....	37-1/2% OFF

**RAILROAD STEEL HANDLE SCREW WRENCHES**



Fig. No. 1358

This wrench is made for heavy work and will stand where all others fail. Case hardened throughout. 12 to 21 inch sizes are made with ball bearing screw and extended jaw support.

Size Inches	Jaws Open	List Dozen
6	1	\$15.00
8	1 1/2	18.00
10	1 7/8	22.00
12	2 1/4	28.00
15	2 11/16	38.00
18	3	48.00
21	3 11/16	58.00

DISCOUNT .....57 1/2% OFF

**DEFIANCE AGRICULTURAL SCREW WRENCH**

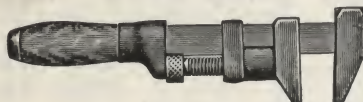


Fig. 1360

Head and bar are drop-forged in one piece. Fitted with easy-acting screw. Seasoned wood handle.

Size Inches	Jaws Open	List Dozen
6	3/4	\$10.00
8	1 1/8	12.00
10	1 11/16	14.00
12	1 7/8	18.00
15	2 1/8	24.00

DISCOUNT .....60% OFF

**GENUINE COES SCREW WRENCHES**  
**Knife Handle**



Fig. 1357

Forged steel bar. Tough semi-steel slide. Solid operating screw. One piece handle frame and bolster.

Size Inches	Jaws Open	List Dozen
6	3/4	\$15.00
8	1 1/4	18.00
10	1 3/4	22.00
12	2 1/4	28.00
15	2 3/4	38.00
18	3	48.00
21	4 1/4	58.00

DISCOUNT .....50-10% OFF

**CRESCENT CRESTOLOY END CUTTING NIPPER**



Fig. 72C

**CRESTOLOY STEEL**

Made of drop forged Crestoloy Steel. Polished head. Blued, smooth handles. 1 in box.

Size Inches	Cutting Edge	Weight Ounces	★ NET EACH
6	1 1/8	9	\$0.72
7	1 3/8	12	\$0.83

**CAREW'S PATENT NIPPERS**



Fig. No. 2173

Forged steel, with adjustable jaws.

**★ NET PRICES EACH**

Size, In.	Net Each	Extra Jaws Net per Pr.
8	\$2.85	\$0.85
10	3.15	.90
12	3.65	.95
14	4.40	1.00

**WESTCOTT ADJUSTABLE "S" WRENCH**



Fig. 1370

Convenient. Useful in inaccessible places. For general use. Malleable iron handle. Forged steel jaw. Strong and durable.

Size Inches	Opens Inches	List Dozen
6	1	\$ 8.00
8	1 1/4	10.00
10	1 3/4	12.00
12	1 7/8	18.00
14	2	24.00

DISCOUNT .....30% OFF

**BERNARD'S PLIERS**



Side Cutting. Fig. No. 102-B

A well known, high grade tool. The leverage on the cutters is compound, giving great power. Jaws open parallel.

4 1/2 Inch Size	....LIST EACH,	\$1.50
5 1/2 Inch Size	....LIST EACH,	\$1.75
6 1/2 Inch Size	....LIST EACH,	\$2.25
8 Inch Size	....LIST EACH,	\$3.25
1 to 5.....	LIST NET	
6 or More.....	10% OFF	

**BERNARD'S NIPPERS**



End-Cutting Nipper. Fig. No. 125-B

Open throat jaws. Its compound system of leverage gives this tool a very high power.

6 Inch Size	....LIST EACH,	\$2.50
7 Inch Size	....LIST EACH,	\$3.00
1 to 5.....	LIST NET	
6 or More.....	10% OFF	

**KLEIN'S SIDE CUTTING PLIER**

**"Diamond Special"**



Fig. No. 201-K

Handles are shaped to the curvature of the hand. Powerful leverage and keen re-inforced cutting knives make this plier adaptable for heavy cutting in telephone and telegraph work. Full clearance back of the knife permits use on insulated wire.

No.	Size Inch	Weight per Doz.	1 to 11 NET EACH	12 or MORE NET
201-6	6	5 lbs.	\$2.25	\$1.70
201-7	7	7 1/2 lbs.	\$2.65	\$2.10
201-8	8	12 lbs.	\$2.90	\$2.30



# GENUINE CRESCENT TOOLS

## GENUINE CRESCENT SINGLE END ADJUSTABLE WRENCH

Polished Finish



Fig. No. 2231

LIST EACH

Size, Inches	Capacity, Inches	Weight	LIST EACH
4	1/2	2 oz.	\$0.75
6	3/4	5 oz.	\$0.75
8	1 1/8	10 oz.	\$0.95
10	1 1/2	18 oz.	\$1.20
12	1 3/4	2 lbs.	\$1.75
15	1 7/8	4 lbs. 5 oz.	\$2.65
18	2 1/8	7 lbs.	\$3.80

## REPAIR PARTS FOR GENUINE CRESCENT ADJUSTABLE WRENCHES

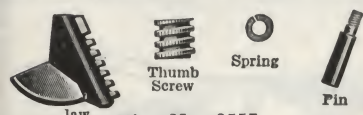


Fig. No. 2557

Handle not supplied as repair part.

Note: Repair parts for the regular single end wrench are interchangeable with the double end wrench parts.

LIST EACH

Size, Inch	Jaw, Each	Thumb-Screw, Each	Pin, Each	Spring Each
4	\$0.25	\$0.10	\$0.05	\$0.05
6	\$0.25	\$0.10	\$0.05	\$0.05
8	\$0.30	\$0.12	\$0.05	\$0.05
10	\$0.40	\$0.15	\$0.05	\$0.05
12	\$0.60	\$0.25	\$0.10	\$0.05
15	\$0.85	\$0.35	\$0.10	\$0.05
18	\$1.15	\$0.55	\$0.10	\$0.05

## GENUINE CRESCENT DOUBLE END ADJUSTABLE WRENCH



Fig. No. 2558

For repair men, machinists, automobilists and others with whom weight and space are important, the Double-End Crescent is unequaled. Each head is turned so as to fit the hand nicely.

LIST EACH

Size Inches	Capacity Inches	LIST EACH
4 & 6	3/2 & 3/4	\$1.30
6 & 8	3/4 & 1 1/8	\$1.50
8 & 10	1 1/8 & 1 1/2	\$1.75
10 & 12	1 1/2 & 1 3/4	\$2.35

DISCOUNT

1 to 12 ..... 13 to 143 ..... 144 or More  
20% OFF ..... 33-1/3% OFF ..... 37-1/2% OFF

## CRESCENT SLIP JOINT PLIERS



Fig. No. H26

### CEETEECO COMBINATION

A guaranteed plier at a low price. Forged from special analysis steel. Carefully machined, hardened and oil tempered. Nickel plate, machine polished finish. 1 in box.

No.	Size Inches	Capacity Inches	LIST EACH
H25	5	3/4	\$0.30
H26	6	1	\$0.30
H28	8	1 1/4	\$0.45
H210	10	1 1/2	\$0.65



Fig. No. G25

### MOTOR KIT COMBINATION

A high grade, hand finished tool. Special steel, accurately machined and hardened by special processes. Bolt and nut turned from solid bar of steel and case hardened. Nickel plate finish, hand buffed. 1 in box.

No.	Size Inches	Capacity Inches	LIST EACH
G25	5	3/4	\$0.50
G26	6	1	\$0.50
G28	8	1 1/4	\$0.60
G210	10	1 1/2	\$0.85



Fig. No. D27

### UNIVERSAL PLIERS

For heavy duty. Drop forged from special steel. One jaw is curved, giving a firm grip upon objects of any shape and a groove in the other jaw enables the plier to grip pins or other round objects. Nickel plate finish, hand buffed. 1 in box. 1 inch capacity. Weight each 9 ounces.

D27—7 Inch ..... LIST EACH, \$0.60



Fig. No. 925C

### SLIP JOINT

High grade. For general work. "V" cut jaw enables the user to grip wires, nails and irregular objects. Barrel stave handles give comfortable grip. Chromium plated.

No. 925C—Inches ...	6	8	10
Weight Each, Oz. ...	9	12	18
LIST EACH .....	\$1.00	\$1.25	\$1.50

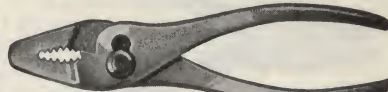


Fig. No. L26

### THIN STRAIGHT NOSE

For work of a fine nature. Reaches and grips objects where ordinary pliers will not. Strong and sharp jaw teeth give a good grip. Case hardened bolt and nut. Nickel plate finish, hand buffed. 1 in box.

No.	Size Inches	Capacity Inches	LIST EACH
L25	5	3/4	\$0.50
L26	6	1	\$0.50
L28	8	1 1/4	\$0.75
L210	10	1 1/2	\$1.00



Fig. No. LS26

### SIDE CUTTING SLIP JOINT

Thin nose. With side cutter, having keen edges and will cut easily. For work of a fine nature. The teeth in the jaws are sharp and strong. Nickel plate, hand buffed finish. 1-inch capacity. Weight each 5 oz.

LS26—6 Inch .... LIST EACH, \$0.75



Fig. No. J26

### THIN BENT NOSE

Nose is bent to an angle of 30 degrees for doing certain kinds of work. Teeth in jaws are sharp and strong and give a good grip. Slip joint style, with case hardened bolt and nut. Nickel plate finish, hand buffed. 1 in box. 1 inch capacity. Weight 7 ounces.

J26—6-inch ..... LIST EACH, \$0.60



Fig. No. 950C

### SIDE CUTTING

Side cutter and pipe grip. A "V" in the nose helps to hold wires firmly. Barrel stave shaped handles give comfortable grip. Nickel plated. 1 in box.

No. 950C—Inches .....	5 1/2	7
Weight Each, Oz. ....	5	8
LIST EACH .....	\$1.25	\$1.50

## CRESCENT AUTO WRENCH



Fig. 019C

Sturdy. Entirely forged from steel of a special analysis. Hardened and oil tempered by a special process. Hand polished finish. Teeth milled, giving easy and accurate adjustments. Spring under adjusting knurl holds the jaw set wherever it is placed.

No.	Capacity Inches	Weight Ounces	LIST
019C	9	14	\$0.75
0111C	11	24-1/4	\$1.25



# CRESCENT PLIERS



Fig. 1000C

## COMBINATION PLIERS

Reliable. Sturdy. For general purposes. Flat nose. Three button's cutters. Pipe grip. Teeth in extreme tip of nose. Gun metal finish with polished head. 1 in box.

1000C, Inches	5	6	8	10
Wt. Each, Oz.	4	8	12	21

LIST EACH.....\$0.70 \$0.80 \$1.00 \$1.25



Fig. 500C

## LIGHT FLAT NOSE

For general work of a light nature. Has a tested wire cutter and checkered grip in jaws. Gun metal finish with polished jaws. 1 in box. Weight each, 4 ounces.

500C, 5 Inch .....LIST EACH, \$1.10



Fig. 39C

## REAMER NOSE

For instrument workers. Nose is ground with sharp corners and hardened to act as a reamer for soft steel, hard rubber, wood, brass, etc. Well balanced. Side cutters. Full polished. 1 in box. Weight each, 4 1/2 ounces.

39C, 5 Inch .....LIST EACH, \$1.00



Fig. 50C

## SIDE CUTTING PLIERS

Well made. Sturdy. Keen edged cutters and spring tempered handles. Gun metal finish with polished jaws. 1 in box.

50C, Ins.	4	5	6	7	8
Wt. Ea., Oz.	4 1/2	5 1/2	8 1/2	10	14

LIST .....0.90 1.00 1.10 1.25 1.50



Fig. 22C

## SHORT CHAIN NOSE

For very fine mechanical work. No wire cutter. Gun metal finish with polished jaws. 1 in box.

22C, Inches	4	5	6
Weight Each, Oz.	2 1/2	4 1/2	5 1/2

LIST EACH .....\$0.80 \$0.90 \$1.00



Fig. 652C

## LONG SQUARE REAMER NOSE

With side cutter. Nose 3 inches long from center of rivet, overall measurement 6 3/4 inches. Nose has sharp edges to ream soft metal or wood. Will also strip wire. Gun metal handles, polished head. 1 in box. Weight each, 5 ounces.

652C, 6 Inch .....LIST EACH, \$1.40

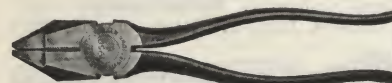


Fig. 1950C

## CRESTOLOY STEEL LINEMEN'S SIDE CUTTING

Sturdy, useful and long lived. Keen edged side cutter and heavy, strong jaws. Gun metal finish with polished head. 1 in box.

1950C, Inches	6	7	8
Wt. Each, Oz.	7	10	16

LIST EACH ....\$1.75 \$2.00 \$2.25



Fig. 622C

## LIGHT CHAIN NOSE SIDE CUTTING

An exceptionally high class plier. Designed and made to satisfy the most exacting requirements of the skilled mechanical worker. This plier is light weight and perfectly balanced. Tested cutting edges. Gun metal finish with polished head. 1 in box. Weight each, 4 ounces.

622C, 5 Inch .....LIST EACH, \$1.10



Fig. M16

## LONG NOSE PLIERS

For radio work, wire bending, loop forming, or for fine work in repair shops, machine shops, etc. Strong wire cutter of the shear cutting type. Full polished. 1 in box. Weight each, 5 ounces.

M16, 6 Inch .....LIST EACH, \$0.75

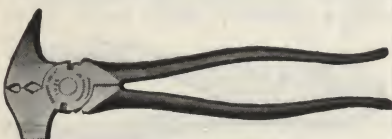


Fig. 1936C

**FENCE TOOL & STAPLE PULLER**  
It stretches, cuts, and joins wire. It drives and pulls staples. The opening closes easily over the head of the staple. Grip between handles holds wire tightly. Broad face on head for driving staples or nails. Sharp heavy prong. Knurled handles. 10-1 1/2 inches overall. 1 in box. Weight 1-1/2 pounds.

LIST EACH ..... \$1.50



Fig. 650C

## LIGHT CHAIN NOSE SIDE CUTTING—CRESTOLOY

Of exceptional utility to auto radiator repairmen. Long, thin, flat nose and keen cutting edges. 3-inch jaw. Actual length, 7 inches. Weight each, 5 ounces. Gun metal finish with polished head. 1 in box.

650C, 7 inch.....LIST EACH, \$1.50



Fig. No. 1033C

## LONG NOSE—CRESTOLOY STEEL

For wire workers. Forms loops and makes bends, and will reach into tight places. No wire cutter. Gun metal finish with polished head. 1 in box.

No. 1033C—Inches	6	7
Nose Length, Inches	2 1/4	3
Weight Each, Ounces	5	6

LIST EACH .....\$1.25 \$1.40



Fig. 20C

## FLAT NOSE

Light. For fine work. Checker knurling in jaws gives firm grip. Gun metal finish with polished jaws. 1 in box.

20C, Inches	4	5	6
Weight Each, Oz.	2 1/2	4 1/2	5 1/2

LIST EACH .....\$0.80 \$0.85 \$1.00

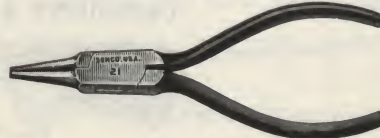


Fig. 21C

## ROUND NOSE

For radio, general electrical use. Especially useful in making loops or small rings. Is not a wire cutter. Gun metal finish with polished jaws. 1 in box.

21C, Inches	4	5	6
Weight Each, Oz.	2 1/2	4 1/2	5 1/2

LIST EACH .....\$0.80 \$0.85 \$1.00



Fig. No. 654C

## CRESTOLOY STEEL

### LONG NOSE SIDE CUTTING

The long nose will reach into tight places and the cutter will cut practically any wire used in radio work.

No. 654C—Inches	6	7
Nose Length, Inches	3	3 3/4
Weight Each, Ounces	5	7

LIST EACH .....\$1.50 \$1.65

**DISCOUNT**

1 to 12.....20% OFF  
13 to 143.....33-1/3% OFF  
144 or More.....37-1/2% OFF



# CRESCENT PLIERS & SNIPS

## CRESCENT PLIERS



Fig. No. 777C

### CRESTOLOY STEEL LONG NEEDLE NOSE

For very fine wire work. Makes bends and will reach into tight places. Slender nose. No wire cutter. Gun metal finish with polished head. No. 777C—Inches ..... 6 7  
Weight, Each, Oz. .... 5 6  
LIST EACH ..... \$1.60 \$1.75



Fig. No. 542C

### CRESTOLOY STEEL HEAVY DIAGONAL CUTTING

One of the most powerful cutting pliers made. Handles designed to give a firm grip. Edges tested. Blued finish with polished head. 1 in box. Weight each, 9 ounces.  
542C—7 Inch ..... LIST EACH, \$1.35



Fig. No. 265C

### LIGHT END CUTTING NIPPERS

Light. Serviceable. For cutting objects close to the surface of other objects. For electrical workers, bench assemblers of delicate apparatus, etc. Gun metal finish with polished head. Weight each, 4½ oz.  
265C—4½ Inch ... LIST EACH, \$1.00



Fig. No. 742C

### CRESTOLOY STEEL DIAGONAL CUTTING PLIER

For hard and continual use. Plenty of metal to back up the keen cutting edges. Big heavy rivet prevents breakage at that point. Smooth lap joint. Full polished. 1 in box. Weight each, 9 ounces.  
742C—7 Inch .... LIST EACH, \$1.60



Fig. 888C

### CRESTOLOY STEEL BENT LONG NEEDLE NOSE

Long, thin nose which is bent at an angle which makes it very handy for working on machines where there are out-of-the-way corners. Good grip. Polished head. Gun metal handles. Tested 100%. 6 ounces. One in box.  
888C—6 Inch ..... LIST EACH, \$1.85

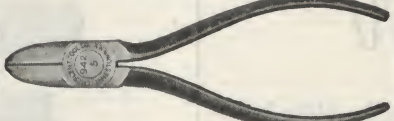


Fig. No. 942C

### CRESTOLOY STEEL DIAGONAL CUTTING

Light, yet strong and very keen edged. Tested blades. Full polished finish. 1 in box.

No. 942C—Inches ... 4 5 6  
Weight Each, Oz. .... 3 4 6  
LIST EACH ..... \$1.35 \$1.50 \$1.75

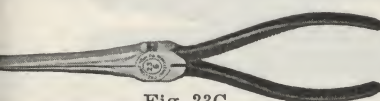


Fig. 23C

### CRESTOLOY DUCK BILL PLIERS

## DISCOUNT

1 to 12  
20% OFF

13 to 143  
33⅓% OFF

144 or More  
37½% OFF

## GENUINE "WISS" TINNERS' SNIPS

A superior quality and construction. A piece of the finest crucible bar steel is welded to the inside of the blade giving a perfect, sharp, and lasting cutting edge.



Fig. No. 3195, Straight  
Fig. 3195CB, Curved

Lgth., Cut, Weight, List  
No. In. In. Lbs. Each

### STRAIGHT CUTTING

12	8½	2½	1½	\$1.55
11	9½	2½	1½	\$1.80
10	11½	2½	1½	\$2.35
9	12½	3	2	\$2.50
8	13½	3½	2½	\$3.00
7	14½	4	3½	\$3.50
6½	15½	4½	3½	\$4.00

### CURVED CUTTING

9CB	12½	3	2	\$3.85
8CB	13½	3½	2½	\$4.40

DISCOUNT .. 25% OFF

## COMBINED SHEARS AND PIPE CRIMPERS

No. 2 Combined double cutting shear and pipe crimper, interchangeable parts. Steel crimping jaws. Length 13 inches, actual cut 1¼ inch. Weight, 2½ lbs.

★ NET EACH, \$2.85

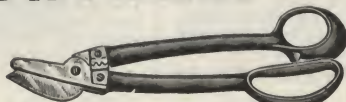


Fig. No. 2220

## CRESCENT TINNERS' SNIPS

Forged from special steel, carefully hardened and tempered and its edges ground on a special grinder designed for the purpose. Powerful leverage. Cuts smoothly and easily. Handles are finished in blue enamel, baked on. Blades are polished. Nut and bolt are turned from a solid bar of steel and case hardened. Finger holes designed to give comfort. 1 in box.

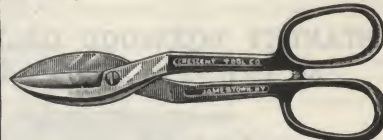


Fig. 3565S

### STRAIGHT CUTTING

No.	Size In.	Cut In.	Wt. Ozs.	LIST EACH
S47	7	1¾	5½	\$0.85
S48	8	1¾	7	\$0.90
S49	9	2	9	\$1.00
S410	10	2½	13	\$1.10
S411	11	2½	19	\$1.25
S412	12	3	25	\$1.50
S413	13	3½	32	\$1.80
S414	14	4	38	\$2.10

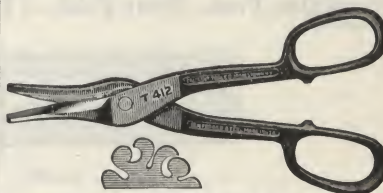


Fig. 3565C

### CIRCULAR CUTTING

T47	7	1¼	7	\$1.10
T412	12	3	25	\$1.75

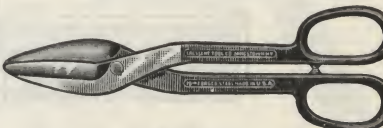


Fig. 4359

### CIRCULAR OR STRAIGHT CUTTING

Can be used for both circular or straight cutting.

U412	12½	3	1¾	\$1.75
U416	16½	2¾	4	\$3.00

## COMPOUND LEVER SNIPS



Fig. 4612

Forged with solid blades of high-grade crucible tool steel. Made for the most trying work on metal. The compounding lever action gives an evenly distributed cutting strain from a close-throat start to the finish at the point of the blade. The short cutting blade is connected to the short lever handle by links on each side with close fitting shoulder rivets making a rigid connecting frame without side-springing.

Lgth. In.	Cuts to Gauge	Cut In. In.	Wt. Ozs.	LIST EACH
8	22-20	1½	10	\$4.50
10½	20	2½	18½	\$6.75
12	18	2½	30	\$9.00
14	16	3¼	41	\$10.50

1 to 5 ..... 20% OFF  
6 or More ..... 25% OFF



### STANLEY BOXWOOD RULES

#### Two Foot—Four Fold—1 Inch Wide

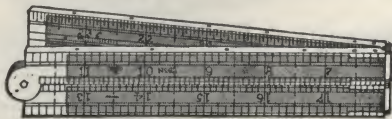


Fig. No. 62-ST

Mfrs. No. 62—Square joint, full bound, drafting scales. 8ths, 10ths, 12ths, 16ths inches. Wt.  $\frac{1}{2}$  doz. 1 $\frac{1}{2}$  lbs.

LIST DOZEN, \$12.88

### STANLEY BOXWOOD CALIPER RULES

#### Six Inch—Two Fold— $\frac{7}{8}$ Inch Wide

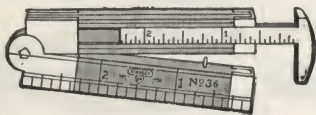


Fig. No. 36-ST

Mfrs. No. 36—Square joint, 8ths, 10ths, 12ths and 16ths inches. Wt.  $\frac{1}{2}$  doz.  $\frac{3}{4}$  lb.

LIST DOZEN, \$8.54

#### One Foot—Four Fold—1 Inch Wide

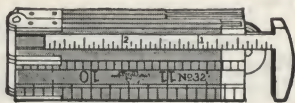


Fig. No. 32-ST

Mfrs. No. 32—Arch joint, edge plates. 8ths, 10ths, 12ths and 16ths inches. Wt.  $\frac{1}{2}$  doz.  $\frac{5}{8}$  lb.

LIST DOZEN, \$12.90

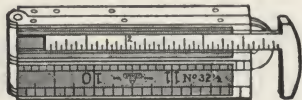


Fig. No. 32 1/2-ST

Mfrs. No. 32 1/2—Arch joint, full bound. 8ths, 10ths, 12ths and 16ths inches. Wt.  $\frac{1}{2}$  doz.  $\frac{3}{4}$  lb.

LIST DOZEN, \$18.60

#### One Foot—Two Fold— $1\frac{3}{8}$ Inches Wide

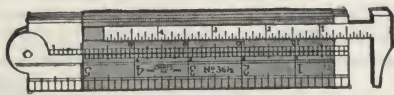


Fig. No. 36 1/2-ST

Mfrs. No. 36 1/2—Square joint. 8ths, 10ths, 12ths and 16ths inches. Wt.  $\frac{1}{2}$  doz.  $\frac{7}{8}$  lb.

LIST DOZEN, \$12.20

### LUFKIN BOXWOOD RULES

#### Two Foot—Four Fold—1 Inch Wide



Fig. 4371. Mfrs. 781

Brass full bound. Square joint. 1 inch wide. Marked drafting scales and 8ths, 10ths, 12ths, and 16ths inch. The most popular of brass bound rules. Durable and practical for mechanics and for general use.

LIST DOZEN, \$14.40

### NATIONAL FOLDING WOOD RULES



Fig. 4374

6 feet. Flexible. 6 inch folds.  $\frac{5}{8}$  inch wide. Steel trimmings. Concealed joints. Marked consecutive inches to 16ths on both sides.

Yellow ..... LIST DOZEN, \$3.00

White ..... LIST DOZEN, \$4.00

### LUFKIN MAPLE FOLDING RULES

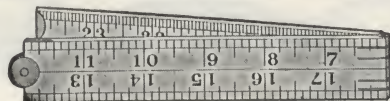


Fig. 4372. Mfrs. 48

Two foot. Maple rule. 1 inch wide. Round joint. Middle plates. Marked 8ths and 16ths. Easy to read.

LIST DOZEN, \$1.90

### LUFKIN SPRING JOINT RULES

Flexible. Six inch folds.  $\frac{5}{8}$  inch wide. Brass plated trimmings. Rivet joints. White enameled.



Fig. 4375

Marked consecutive inches to 16ths on both sides.

Mfrs. No.	Length Feet	Ounces, Each	LIST DOZEN
8624	4	2 $\frac{3}{4}$	\$4.60
8626	6	4	\$6.00
8628	8	5 $\frac{1}{2}$	\$8.60



Fig. 4376

With inside marking (numbering commences on inside face of rule). Marked consecutive inches to 16ths on both sides.

Mfrs. No.	Length Feet	Ounces, Each	LIST DOZEN
8624F	4	2-2/3	\$4.60
8626F	6	4	\$5.40

### LUFKIN MAPLE EXTENSION RULES

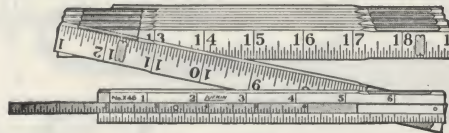


Fig. 4154

Mfrs. X46. 6 foot folding extension rule. Made of maple. With 6 inch brass extension slide. Lock joints. Strike plates. Patented. Rule and slide are marked inches to 16ths. For inside measurements of openings and for all regular measuring. Packed  $\frac{1}{2}$  dozen in box with an attractive display card in colors. Weight  $\frac{1}{2}$  dozen, 2 pounds.

LIST DOZEN, \$12.00

**DISCOUNTS .... 1 to 5, 15% OFF**

**6 or More ..... 25% OFF**



## LUFKIN ALUMINUM RULES



Fig. 4377

Six inch folds.  $\frac{9}{16}$  inch wide. Rust-proof. Light weight. Special hardness. Durable and holds its shape well. Legible black markings and figures. Solid brass spring joints of the rivet type. Marked consecutive inches to 16ths on both sides.

Mfrs. No.	Length Feet	Ounces, Each	LIST DOZEN
1204	4	4	\$10.60
1205	5	5	\$13.20
1206	6	5 $\frac{1}{2}$	\$15.60

STANLEY "VICTOR" ZIG-ZAG RULES  
Six Inch Folds

Fig. No. 3162

## Enameled Wood

YELLOW		WHITE	
Length, Feet	LIST DOZEN	Length, Feet	LIST DOZEN
3	\$2.95	3	\$3.34
4	\$3.85	4	\$4.26
5	\$4.54	5	\$4.98
6	\$4.96	6	\$5.50
8	\$7.14	8	\$7.90

## STANLEY STEEL SQUARE

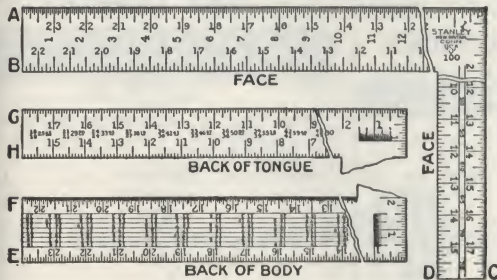


Fig. No. 100-ST

Mfrs. No. 100—Two foot squares, body 24x2 in., tongue 16x1  $\frac{1}{2}$  in. Polished steel, graduated in 32nds, 16ths, 12ths and 8ths, with Brace, Octagon, and Essex Board Measure tables and 100th scale. Wt. 1  $\frac{1}{4}$  lbs. each.

LIST EACH, \$1.90

## STANLEY RAFTER OR FRAMING SQUARE

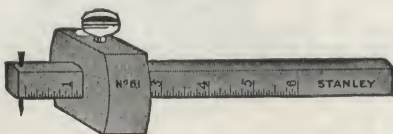
Mfrs. No. R100B—Body 24x2 in., tongue 16x1  $\frac{1}{2}$  in. Blued steel, graduated in 32nds, 16ths, 12ths, 10ths and 8ths, with Rafter or Framing, Brace, Octagon and Essex Board Measure tables, and 100th scale. Wt. 1  $\frac{1}{4}$  lbs. each.

LIST EACH, \$3.05

## STANLEY "TAKEDOWN" RAFTER SQUARE

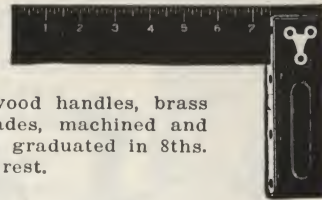
Mfrs. No. 100B-TD—Same as No. R100B, above, except with dovetailed tongue and cam locking device. Blued steel finish. Weight 2  $\frac{1}{4}$  lbs. each. Complete with canvas case.

LIST EACH, \$6.10



## STANLEY TRY SQUARES

Fig. 20-ST

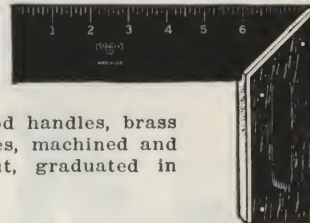


Mfrs. No. 20—Rosewood handles, brass face plates, blued blades, machined and square inside and out, graduated in 8ths. 18 in. size with handle rest.

Blade, Inches	Handle, Inches	Weight, Ounces	LIST DOZEN
4 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{2}$	\$7.10
6	4 $\frac{1}{2}$	5 $\frac{1}{2}$	\$7.60
7 $\frac{1}{2}$	5 $\frac{1}{2}$	7 $\frac{1}{2}$	\$7.90
9	6	9 $\frac{1}{2}$	\$9.80
10	6	10	\$12.25
12	7	12	\$14.30
15	9 $\frac{1}{4}$	20 $\frac{1}{2}$	\$18.40

## STANLEY TRY AND MITRE SQUARES

Fig. 2-ST

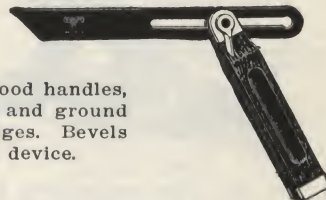


Mfrs. No. 2—Rosewood handles, brass face plates, blued blades, machined and squared inside and out, graduated in 8ths.

Blade, Inches	Handle, Inches	Weight, Ounces	LIST EACH
4 $\frac{1}{2}$	3	4	\$0.85
6	3 $\frac{1}{2}$	5 $\frac{1}{2}$	\$0.97
7 $\frac{1}{2}$	4 $\frac{1}{2}$	8	\$1.10
9	5 $\frac{1}{2}$	9	\$1.33
12	5 $\frac{5}{8}$	10 $\frac{1}{2}$	\$1.66

## STANLEY SLIDING "T" BEVELS

Fig. 25-ST

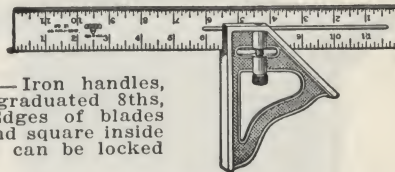


Mfrs. No. 25—Rosewood handles, blued blade, machined and ground on both sides and edges. Bevels have improved locking device.

Blade, Inches	Handle, Inches	Weight, Ounces	LIST DOZEN
6	4 $\frac{1}{2}$	3	\$7.30
8	5 $\frac{1}{2}$	4 $\frac{1}{2}$	\$7.30
10	6 $\frac{1}{2}$	5 $\frac{1}{2}$	\$7.80

## STANLEY COMBINATION SQUARE

Fig. 21-ST



Mfrs. No. 21—Iron handles, nickel plated, graduated 8ths, 16ths, 32nds. Edges of blades are machined and square inside and out. Blade can be locked at any point.

Blade, Inches	Handle, Inches	Weight, Pounds	LIST EACH
9	3 $\frac{3}{4}$	$\frac{1}{2}$	\$1.20
12	4 $\frac{3}{8}$	$\frac{3}{4}$	\$1.25

## STANLEY MARKING GAUGE

Fig. No. 61-ST

Mfrs. No. 61—Square beechwood head, boxwood screw, graduated in 16ths for 6 inches from point. Wt. 2  $\frac{1}{8}$  lbs. per doz.

LIST DOZEN, \$3.60

DISCOUNTS, 1 to 5 ..... 15% OFF 6 or More ..... 25% OFF



## STANLEY "BAILEY" ADJUSTABLE IRON PLANES

Made from high grade materials and carefully adjusted. Superior steel cutters, adjustable endwise and sidewise. Rosewood handles and specially designed knobs. All with smooth bottoms.



Fig. No. 4-ST

Mfrs. No. 4—Smooth plane, 9 in. long, 2 in. cutter. Wt., 3¾ lbs.  
LIST EACH, \$4.00

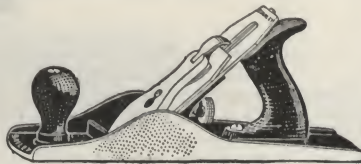


Fig. No. 5-ST

Mfrs. No. 5—Jack plane, 14 in. long, 2 in. cutter. Wt., 5 lbs.  
LIST EACH, \$4.50

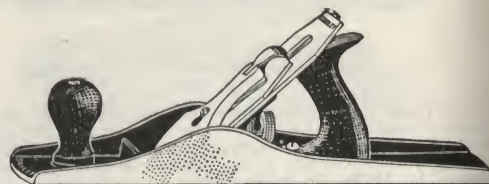


Fig. No. 6-ST

Mfrs. No. 6—Fore plane, 18 in. long, 2½ in. cutter. Wt., 7 lbs.  
LIST EACH, \$6.35

DISCOUNTS ..... 1 to 5, 15% OFF 6 or More, 25% OFF

### V&B UNBREAKABLE SUPER STEEL PLANES

Drop forged from solid bar super steel, so tough as to be practically unbreakable by blows or falls. Frog fits solidly on frog base and is held in perfect alignment by guides. Cutters made from one piece of vanadium steel, tested to-cut wire. Highly finished, with walnut handles and knobs.

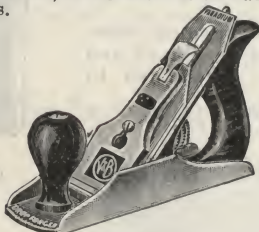


Fig. 3150

Mfrs. No. 704, smooth pattern, 9 in. long, cutter 2 in. wide, wt. 3¾ lbs.

LIST EACH, \$4.50

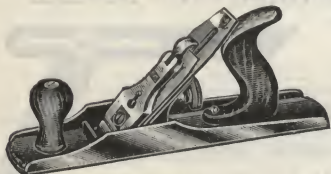


Fig. 3151

Mfrs. No. 705, Jack pattern, 14 in. long, cutter 2 in. wide, wt. 4¾ lbs.

LIST EACH, \$5.00

DISCOUNT ..1 to 5, 15% OFF  
6 or More.....25% OFF

### STANLEY EVERLASTING CHISELS

#### Bevel Edge Butt Pattern



Fig. 50-ST

Mfrs. No. 50—Head, shank and blade forged from one piece of tool steel. Hickory handle, with leather cushion under head and brass ring reinforcement to prevent handle splitting. Shank is upset against bar steel ferrule, making shank and ferrule practically one piece. Cutting edges ground sharp.

Blade, Inches	Overall, Inches	Weight, Ounces	LIST EACH
½	8	6¾	\$1.40
¾	8	7¼	\$1.50
1	8½	8¾	\$1.60
1½	9	13¼	\$2.00

#### Bevel Edge Firmer Pattern



Fig. 20-ST

Mfrs. No. 20—Same as Mfrs. No. 50 in construction.

Blade, Inches	Overall, Inches	Weight, Ounces	LIST EACH
½	11¼	7½	\$1.60
¾	11¼	9¼	\$1.70
1	11¼	11¼	\$2.00
1½	12¼	16½	\$2.30

DISCOUNT ..1 to 5, 15% OFF  
6 or More.....25% OFF

### CRESCENT WOOD CHISELS



Fig. 3942

Mfrs. 175. All Steel. For heavy duty work. Will take a keen edge and hold it. Repeated sharpening is possible as the blade is hardened throughout. Black enamel finish with red head and polished blade. Ground for ordinary work.

Size, Inches	Length, Inches	Weight, Ounces	LIST EACH
¾	10	13	\$0.70
1	10	14	\$0.80
1½	10	15	\$0.90

1 to 5 .....LIST NET  
6 or More .....20% OFF

### STANLEY WOOD PLUMBS AND LEVELS



Fig. 00-ST

Mfrs. No. 00—Standard stock, 2½ x 13¼, hardwood, non-adjustable levels, proved glasses.

Length, Inches	Weight, Pounds	LIST EACH
18	1¾	\$1.50
20	1½	\$1.50
22	1½	\$1.55
24	1½	\$1.65
26	2	\$1.75
28	2½	\$1.85
30	2½	\$1.95

DISCOUNT ..1 to 5, 15% OFF  
6 or More.....25% OFF

### WOOD WORK BENCHES



Fig. 3673

Mfrs. No. 205. Steel rapid acting vise. One stationary and one adjustable steel dog. Weight, 220 pounds. Bolted top is 52 by 22 by 2¼ inches. 32 inches high. Tool recess is 7 inches wide. General drawer is 32 by 17 by 5 inches. Four small drawers with masterkey locks 15½ by 17 by 5 inches. Legs are 2 by 3 inches with 5 by ¾ inch bolt construction, with strong mortise and tenon in all joints of the cabinet. Drawers have wooden pulls and dovetailed construction.

★ NET EACH, \$44.00

Built from the most carefully selected hard white maple and birch grown in the north. Every piece of this lumber is carefully air-dried for months under cover and is then fully seasoned in dry kilns. These benches never have a tendency to pull apart at the joints. Frame joints are firmly reinforced with bolts. Finish is shellac and varnish.

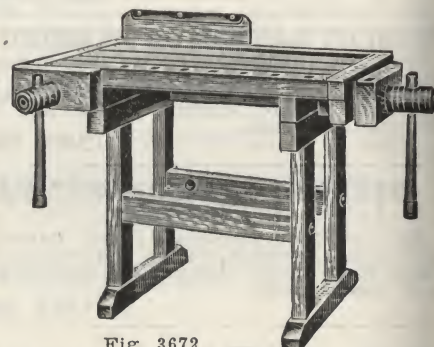


Fig. 3672

Mfrs. No. 7. Fitted with two wood screw vises, two wood stops and tool rack with a tool recess 7 inches wide. Weight, 110 pounds. Top is 42 inches long, 20 inches wide, 1¾ inches thick. Height is 32 inches. Stand is 1¾ by 3 inch stock strongly mortised. Vises have 12 inch jaws and open 12 inches. Screws are made of hard maple 1¾ inches in diameter. Shipped knocked down.

★ NET EACH, \$17.50



**ATKINS HOME AND FARM SAW**

Fig. 3454 (Mfrs. 59)

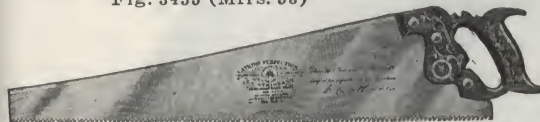


24 inches long. 8 points. Cross cut. Made of high quality tool steel, finely finished and warranted. Skew back. Handle is thoroughly seasoned birch, varnished and polished. Fastened to blade with three brass screws and medallion.

★ NET EACH, \$1.75

**ATKINS PERFECTION SAW**

Fig. 3455 (Mfrs. 53)



26 inches long. 8 points, cross cut. For mechanics and general carpenter. Very popular. Blade is genuine silver steel taper ground. Atkins Damaskeen finish. Skew back. Handle, applewood, embossed and polished. Fastened to blade with 3 nickel screws and medallion.

★ NET EACH, \$3.20

**ONE-MAN CHAMPION TOOTH SAW**

Fig. 4162

Two cutting teeth to each raker. Straight back. With "D" and supplementary handle.

Length Feet	Butt Width	Point Width	★NET EACH
3½	6½	2½	\$2.50
4	7	2½	\$2.85

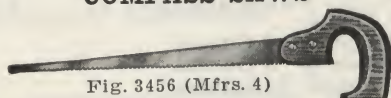
**COMPASS SAWS**

Fig. 3456 (Mfrs. 4)

Beech handle, 2 screws, varnished edge. 8 points per inch. Standard quality blade.

Sizes, Inches	12	14	16
Saws, ★ NET EACH	\$0.40	.40	.40

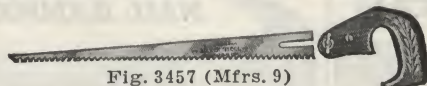


Fig. 3457 (Mfrs. 9)

Atkins. A very fine saw. Carved and varnished interchangeable beech handle. Attached with nickel wing nut and screw. Genuine silver steel blade.

Sizes, Inches	10	12	14	16
Saws, ★ NET EACH	\$0.75	.80	.84	.88
Extra Blades, ★ NET EACH	.42	.45	.50	.53

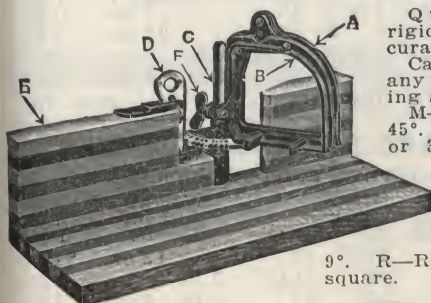
**PERFECTION MITRE BOX**

Fig. 2881

Quickly set, rigidly held, accuracy assured. Can be set at any of the following angles:

M—Mitre, or 45°. P—Pentagon, or 36°. H—Hexagon, or 30°. O—Octagon, or 22½°. W—Usual door or window sill, or 9°.

R—Right angle or square.

★ NET EACH, \$2.95

**LE PAGE'S GLUE****DISCOUNTS**

Broken  
Cases  
25% OFF

Full  
Cases  
33½% OFF



Fig. 1849 Liquid

**Liquid.** The world's standard. An inch oak stick was halved and glued with LePage's and resisted a breaking test up to 6030 pounds.

No.	Size	No. In Case	LIST DOZ.
25	Bottle ...	144	\$ 2.40
27	Tube ...	144	\$ 2.40
30	Gill Can ...	36	\$ 3.60
31	½ Pint ...	24	\$ 6.00
32	Pint Can ...	12	\$10.20
33	Quart ...	12	\$18.00
35	Gallon ...	6	\$54.00

Fig. 4181 Powder

**Waterproof.** In dry powder form. Mix with one part water. Withstands the action of moisture, humidity and heat. Made from a case-in base.

Size	No. In Case	LIST DOZ.
10 Cent ...	144	\$ 1.20
4 Ounce ...	12	\$ 3.00
8 Ounce ...	12	\$ 4.80
16 Ounce ...	12	\$ 7.80
5 Lb. Bag ...	5	\$33.00
10 Lb. Bag ...	5	\$60.00
25 Lb. Bag ...	1	\$120.00

**WOOD HAND SCREWS**

Seasoned maple jaws, sanded and oiled. Selected second growth hickory spindles with threads.

Screw Mfrs. No.	Size In.	Jaw Size In.	Opens In.	★NET DOZ.
800	1¼x28	3x3	x24 17	\$26.60
804	1½x22	2¼x2½	x18 12½	\$16.00
806	1x20	2¾x2¾	x16 11	\$14.00
810	¾x16	1¾x1¾	x12 8½	\$9.00
811	¾x14	1¾x1¾	x12 7½	\$8.00
813	¾x10	1¾x1¾	x8 4½	\$6.60
814	¾x8	1¾x1¾	x7 3	\$6.75

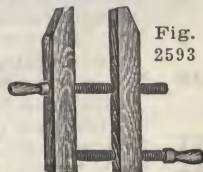


Fig. 2593

**PEERLESS ADJUSTABLE CLAMPS**

Fig. No. 2592

For holding irregular shapes in any position. Wooden parts seasoned maple. Sockets and spindles high grade steel.

Length No. Inches	Jaw, Inches	Opens Inches	List per Doz.	List Each
0	8	4½	\$21.00	\$2.10
1	10	6½	24.00	2.40
2	12	8½	27.00	2.70
3	14	10½	30.00	3.00
4	16	12½	36.00	3.60
5	18	14½	42.00	4.20

Discount ... 30% OFF

**SPRING STEEL BAR CLAMPS**

Fig. 3251

For sash work, furniture and general work. Terrific squeezing power. Crucible spring steel bar, 1½ by ¾ inch. Certified malleable castings with 2 by 2 inch clamping surfaces. High carbon steel screw.

No.	Opens In.	List Each
30	18	\$2.93
31	24	3.00
32	30	3.13
33	36	3.25
34	42	3.38
35	48	3.50
36	60	3.75
37	72	4.10
38	96	4.60
39	120	5.20

DISCOUNT ... 25% OFF

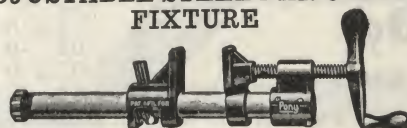
**ADJUSTABLE STEEL BAR CLAMP FIXTURE**

Fig. 3545. Fixtures Only, No Pipe

Makes long steel clamps. Use any length of ¾ inch pipe. Screw head of clamp on one end of pipe. Slip tail piece on opposite end, multiple clutch ring levers automatically grip the pipe securely against any pressure of the screw. Move tail piece against the work where it automatically locks in position and with one turn of the crank handle the work is under pressure. Made of malleable iron, enameled. Cold drawn steel screws.

★ NET SET (Without Pipe), \$1.40



# GENUINE CHENEY HAMMERS

## 14 Big Features

## The Cheney NAILER

The nail-holding arrangement on the Cheney Nailer with the nail in position. Two metal points backed by stout springs meet and hold the nail securely in place behind them. The spring arrangement allows the nail to be easily inserted and as easily removed, and the niche is so cut that the great driving force is directed right to the head of the nail. The placing blow often drives the nail half way in.

- 1 Nail-holding device allows one-hand nailing.
- 2 Safety when nailing in precarious positions.
- 3 Gives longer reach in placing nails.
- 4 Saves time.
- 5 Saves extra scaffolding.
- 6 Prevents injury to other hand.
- 7 Nail-holding device found only on the Cheney Hammer.
- 8 Nail-holding device an integral part of hammer—no attachments—no extra weight—doesn't affect "hang."
- 9 Two different styles of Cheney Hammers are made with nail-holding device.
- 10 Not a single good Cheney Hammer point has been sacrificed for nail-holding device—materials, "hang," finish, all up to the Cheney high standard.
- 11 Securely holds any nails up to 20 penny.
- 12 Nails quickly inserted, securely held and release themselves.
- 13 Built to withstand soundest blows. First blow often more than half drives nail.
- 14 Fully guaranteed.



Fig.  
3700

**FIG. 3700. NAIL-HOLDING CARPENTERS' HAMMERS**  
FULL POLISHED OVAL WAXED HANDLES

Mfrs. No.	Face	Size	Weight Without Handle	List Dozen
938	Bell	11 1/2	1 Pound	\$18.00
937	Bell	11	1 Pound, 4 Ounces	\$19.20
904	Plain	0	1 Pound, 8 Ounces	\$24.00
903	Plain	00	1 Pound, 12 Ounces	\$30.00

**DISCOUNT CHENEY NAILERS ..... 45% OFF**

### CHENEY CARPENTERS' HAMMER



**70¢**

★ NET EACH

Fig. 4182

Mfrs. 38. Handle is clear, second-growth hickory, full polished, wax finished. 'Never-Slip' grip. Handle is joined to head by a wedging system that never gives. Tool steel head, that doesn't batter or chip. Separate temper for head and claws. Claws make pulling nails a cinch. Easy on the wrist having that good old 'hang'—the true hammer balance. Size 11 1/2. Head, 1 pound.

### MOHAWK ADZE EYE NAIL HAMMERS



Fig. 3702

Second quality. Bell face, forged finish, varnished handles.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
B2 1/2-B	13	7 oz.	\$ 9.05
B2	-B 12	13 oz.	9.50
B1 1/2-B	11 1/2	1 lb.	10.00
B1	-B 11	1 lb., 4 oz.	10.95

**DISCOUNT ..... 40% OFF**

### MOHAWK ADZE EYE NAIL HAMMERS



Fig. 3703

Second quality. Bell face, full polished, varnished handles.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
2 1/2-B	13	7 oz.	\$12.75
2	-B 12	13 oz.	13.20
1 1/2-B	11 1/2	1 lb.	13.70
1	-B 11	1 lb., 4 oz.	14.65

**DISCOUNT ..... 40% OFF**

### CHENEY BELL FACE RIPPING HAMMERS

Full polished, waxed oval never-slip handle.

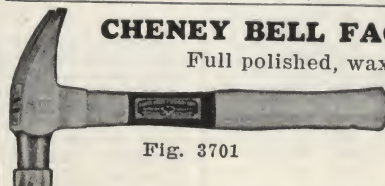


Fig. 3701

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
44-0	12	13 oz.	\$17.60
44	11 1/2	1 lb.	18.00
43	11	1 lb. 4 oz.	19.20

**DISCOUNT ..... 45% OFF**



# GENUINE CHENEY HAMMERS

All first quality Cheney Hammers are guaranteed to be right in every respect and will be replaced without question if found defective.

## Railroad Finish Ball Pein Hammers

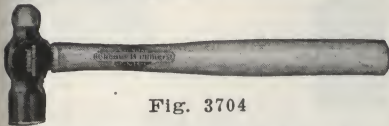


Fig. 3704

Black heads, varnished handles.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
399 1/2-R	7-0	2 oz.	\$ 9.15
399 -R	5-0	4 oz.	9.15
398 -R	4-0	6 oz.	9.15
397 -R	3-0	8 oz.	9.15
396 -R	2-0	12 oz.	9.15
395 -R	0	1 lb.	9.50
394 -R	1	1 lb., 4 oz.	10.30
393 -R	2	1 lb., 8 oz.	11.05
392 1/2-R	3	1 lb., 12 oz.	11.80
392 -R	4	2 lb.	12.55
390 1/2-R	6	2 lb., 8 oz.	14.50
390 -R	8	3 lb.	16.75
DISCOUNT ..... 30% OFF			

## Machinists' Cross Pein Hammers

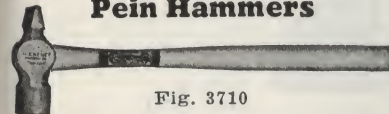


Fig. 3710

Full polished, waxed oval handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
138	0	1 lb.	\$16.80
136	2	1 lb., 8 oz.	18.60
134	4	2 lb.	21.60
DISCOUNT ..... 40% OFF			

## Engineers' Hammers

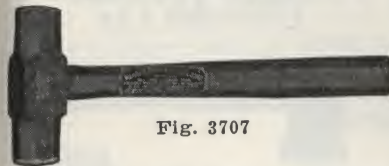


Fig. 3707

Octagon double face, oil finished, ebonized octagon handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
443	2	2 lb., 6 oz.	\$21.00
DISCOUNT ..... 35% OFF			

## Brick Hammers

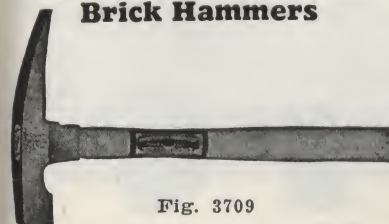


Fig. 3709

Adze eye, full polished, waxed oval handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
192	2	1 lb., 8 oz.	\$18.60
DISCOUNT ..... 35% OFF			

## Machinists' Ball Pein Hammers

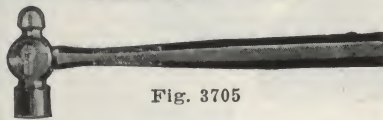


Fig. 3705

Oil finished, ebonized, octagon handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
399 1/2	7-0	2 oz.	\$13.20
399 -	5-0	4 oz.	13.20
398	4-0	6 oz.	13.20
397	3-0	8 oz.	13.20
396	2-0	12 oz.	13.20
395	0	1 lb.	13.80
394	1	1 lb., 4 oz.	15.00
393	2	1 lb., 8 oz.	16.20
392 1/2	3	1 lb., 12 oz.	17.40
392	4	2 lb.	18.60
390 1/2	6	2 lb., 8 oz.	21.60
390	8	3 lb.	24.00
DISCOUNT ..... 40% OFF			

## Machinists' Straight Pein Hammers

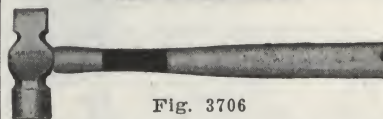


Fig. 3706

Full polished, waxed oval handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
112 1/2	0	1 lb.	\$16.80
111	2	1 lb., 8 oz.	18.60
109 1/2	4	2 lb.	21.60
DISCOUNT ..... 40% OFF			

## Auto Bumping Hammer

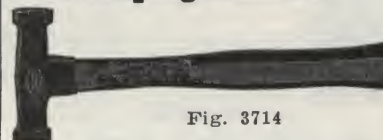


Fig. 3714

Oil finished, ebonized octagon handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
778	1 1/2	1 lb.	\$15.00
DISCOUNT ..... 35% OFF			

## 3-in-1 Hammer

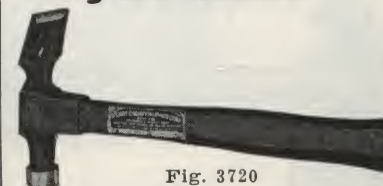


Fig. 3720

Hammer, adze, hatchet, oil finished, ebonized octagon handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
777	1	1 lb., 4 oz.	\$19.20
DISCOUNT ..... 35% OFF			

## Blacksmith Hand Hammers

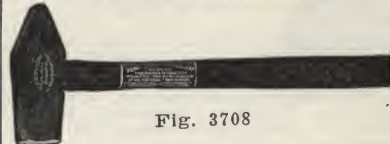


Fig. 3708

Oil finished, ebonized octagon handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
402	1	2 lb.	\$19.50
401	2	2 lb., 10 oz.	21.00
400	3	3 lb.	22.50
400-0	4	3 lb., 8 oz.	24.50
DISCOUNT ..... 35% OFF			

## Riveting Hammers

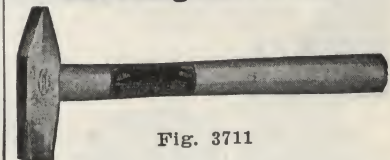


Fig. 3711

Plain eye, full finished, waxed oval handle.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
76	0	4 oz.	\$12.60
75	1	7 oz.	13.20
74	2	9 oz.	13.80
73	3	12 oz.	14.40
72	4	15 oz.	15.00
71	5	1 lb., 2 oz.	16.20
DISCOUNT ..... 35% OFF			

## Tinners' Riveting Hammer

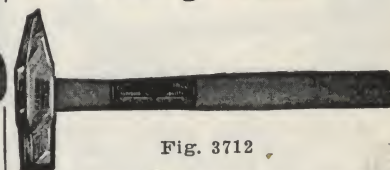


Fig. 3712

Full polished, waxed oval handles.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
129	2	12 oz.	\$15.00
DISCOUNT ..... 35% OFF			

## Tinners' Paneing Hammer

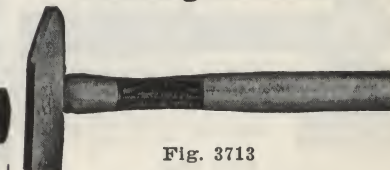


Fig. 3713

Full polished, waxed oval handles.

Mfrs. Hammer No.	Size	Weight Without Handle	List Dozen
122	2	12 oz.	\$15.00
DISCOUNT ..... 35% OFF			



# KELLY HATCHETS

## KELLY COLUMBIAN BROAD HATCHET

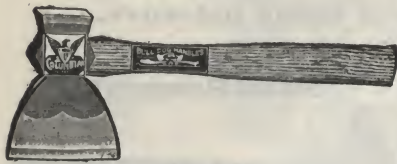


Fig. 3754

Strictly highest quality. Crimson lacquer finish. Polished blades. Second growth seasoned hickory handles.

Size .....	1	2
Width of cut, ins.....	4	4½
Length, handle, ins.....	14	15
★ NET EACH .....	\$1.25	\$1.35

## KELLY COLUMBIAN HALF HATCHETS



Fig. 3755

Strictly highest quality. Crimson lacquer finish. Polished blades. Second growth seasoned hickory handles.

Size .....	1	2
Width of cut, ins.....	3¼	3½
Length, handle, ins.....	13	14
★ NET EACH .....	\$0.95	\$1.00

## KELLY COLUMBIAN LATH HATCHET



Fig. 3756

Strictly highest quality. Crimson lacquer finish. Polished blade. Second growth seasoned hickory handles.

Size .....	1	2
Width of cut, ins.....	2½	2¾
Length, handle, ins.....	12	13
★ NET EACH .....	\$0.95	\$1.00

## KELLY COLUMBIAN CLAW HATCHET



Fig. 3757

Strictly highest quality. Crimson lacquer finish. Polished blade. Second growth seasoned hickory handles.

Size .....	1	2
Width of cut, ins.....	3½	4
Length, handle, ins.....	13	14
★ NET EACH .....	\$1.05	\$1.10

## KELLY HAND MADE BROAD HATCHETS



Fig. 3758

Black forged finish, cutting edge polished. Handsomely stained selected hickory handles.

Size .....	1	2
Width of cut, ins.....	4	4½
Length, handle, ins.....	14	15
★ NET EACH .....	\$1.00	\$1.15

## KELLY HAND MADE HALF HATCHET

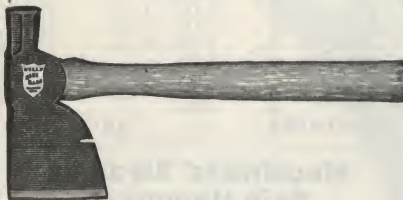


Fig. 3759

Black forged finish, cutting edge polished. Handsomely stained hickory handles.

Size .....	1	2
Width of cut, ins.....	3¼	3½
Length, handle, ins.....	13	14
★ NET EACH .....	\$0.75	\$0.80

## KELLY HAND MADE LATH HATCHET



Fig. 3760

Black forged finish, cutting edge polished. Handsomely stained hickory handles.

Size .....	1	2
Width of cut, ins.....	2½	2¾
Length, handle, ins.....	12	13
★ NET EACH .....	\$0.75	\$0.80

## KELLY HAND MADE CLAW HATCHET

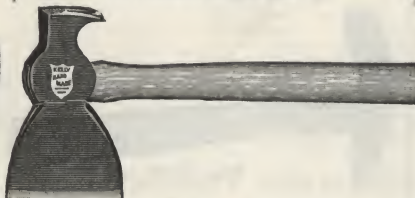


Fig. 3761

Black forged finish, cutting edge polished. Handsomely stained hickory handles.

Size .....	1	2
Width of cut, ins.....	3½	4
Length, handle, ins.....	13	14
★ NET EACH .....	\$0.85	\$0.90

## UNDERHILL LATH HATCHET

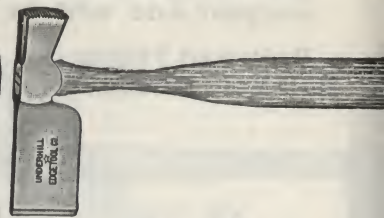


Fig. 3762

Solid crucible steel, hand tempered, hardened milled heads. Full polished and etched. Special shape second growth hickory handle. 12 rows, 144 points. Width of cut, 2½ inches. Length of handle, 13 inches.

★ NET EACH, \$1.75

## KELLY VANADIUM HALF HATCHET



Fig. 3763

Drop forged from chrome vanadium steel. Fine tough temper. Handles are second growth hickory. Hexagon neck. Round head. Extra full striking surface. Sharp beveled nail-slot. Strong THIN blade. Size 2. 3½ inch cut. 14 inch handle. Flat Head .....★ NET EACH, \$1.50  
Scored Head ...★ NET EACH, \$1.00

## KELLY TROOPER HUNTERS AXE



Fig. 3764

Black forged finish, cutting edge rased. One piece tool steel, hand tempered. Size 0. 14 inch handle. Head weighs 1½ pounds.

★ NET EACH, \$0.90

## KELLY BOY SCOUT KAMP AXE

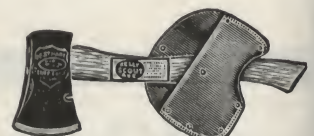


Fig. 3765

Flint Edge. Made from one piece, tool steel, hand tempered. Rustless black high lustre finish. Cutting edge honed. Beveled nail slot. Green stained fawn foot handles. Weight of head, 1½ pounds. With sheath.

★ NET EACH, \$1.40



## KELLY FALLS CITY SINGLE BIT AXES

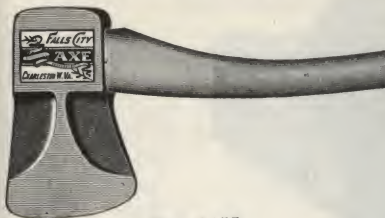


Fig. 3155

Michigan Pattern. 3 to 4 pounds assorted. 36 inch hickory handles. Soft steel body, crucible steel bit, hand tempered, polished blade.

★ NET EACH, \$1.50

## KELLY FALLS CITY HANDLED HOUSE AXE

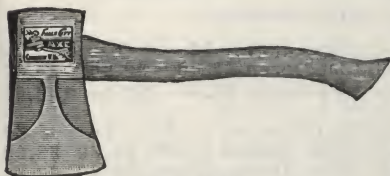


Fig. 3766

One piece, tool steel, hand tempered. Polished blade, red poll, blue bevel. Weight of head 2 1/4 pounds. 19 inch handle.

★ NET EACH, \$1.10

## HARDWOOD MALLET

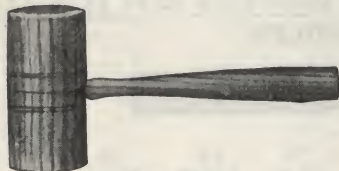


Fig. 2748

2 1/2 x 6 inch. Made of Maple and Swamp Oak.

★ NET EACH, \$0.35

## RUBBER MALLET

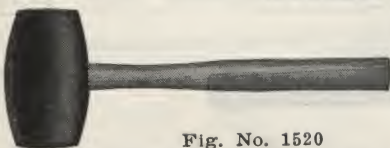


Fig. No. 1520

Rubber flange locks into notch in handle, heads cannot come off.

No.	Diameter, Inches	Length, Inches	Weight, Pounds	★ NET DOZEN
1	2 1/4	3 1/2	1 1/2	6.00
2	2 1/4	3 1/2	1 1/2	7.50
3	2 1/4	4 1/2	2 1/2	9.00

## HICKORY FOUNDRY MAULS



Fig. 3999

Seasoned two to three years. Bored with a one and one-half inch bit, then a taper reamer rims out the hole to a depth of two inches on one side and the 36 inch handle is made to fit this taper, making it impossible for the maul to leave the handle while in use. The hand welded steel rings are oval on the inside, are heated and placed in position on each end of the maul with a ten ton pressure, and are fastened with steel dowels. Painted heads. Natural wood handles.

5 by 9 Inch Size.....★ NET EACH, \$4.00

## RAWHIDE HAMMERS



Fig. 1524

Malleable iron head solidly backs up the replaceable rawhide faces. The tightly rolled hard rawhide face offers an effective non-marring striking service.

No.	Diameter, Inches	Weight, Pounds	List per Dos.	Extra Faces List per Dos. Pairs
0	1	1 1/2	\$16.20	\$5.64
1	1 1/4	1 1/2	15.96	6.00
2	1 1/2	1 1/2	24.12	7.20
3	1 3/4	2 1/4	28.80	9.12
4	2	4	41.76	15.84
5	2 1/4	6 1/2	52.80	22.44

1 to 11 ..... 20% OFF  
12 or More ..... 25% OFF

## RAWHIDE MALLET



Fig. 1523

Strikes an effective blow without injury or mar. Solid rawhide mallet heads, firmly glued and steel riveted. Second growth hickory handle, taper driven and wedged.

No.	Diameter, Inches	Length, Inches	Weight, Ounces	List Dos. Ea.
0	1	2 1/2	2	\$ 7.92
1	1 1/4	3	3 1/2	9.60
2	1 1/2	3 1/4	6	11.16
3	1 3/4	3 1/4	7 1/2	12.72
4	2	3 1/2	10	16.08
5	2 1/4	4 1/4	21	35.64
6	2 3/4	4 3/4	23	40.30

1 to 11 ..... 20% OFF  
12 or More ..... 25% OFF

## BILL POSTERS' HAMMERS

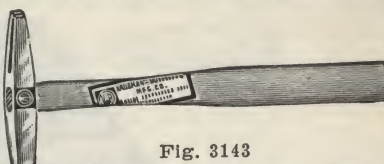


Fig. 3143

Polished steel. Plain eye. Two-tone hickory handles. 11 1/2 inches overall.

Mfrs. No.	Head Weight Ounces	Length Inches	Total Weight Ounces	★ NET EACH
45	4	3 1/2	6 3/4	\$0.80
55	5	4	8	\$0.85
85	8	4 1/2	11	\$0.95

## PRICK PUNCHES AND CENTER PUNCHES



Extra Quality. Knurled Pattern

Steel Diameter Inches	Length Inches	★ NET DOZEN Prick Punch	Fig. 2630 Fig. 2631 Center Punch
3/8	4	\$2.10	\$2.10
1/2	6	\$2.75	\$2.75

## NAIL SETS



Fig. 1168

Ends hardened. 4 inches long. Diameter at tip: A, 1/16 inch; B, 1/32 inch; C, 1/8 inch.

12 Assorted Sizes.....★ NET BOX, \$1.30  
Solid Sizes.....★ NET EACH, \$ .15

## CARPENTERS' PINCER



Fig. 3152

Drop forged. Tempered and tested. Polished jaws. Ebony finish flat handles, with claw and screw driver. Filled jaws. Wire cutter.

Mfrs. No.	Length Inches	Weight Lbs.	★ NET EACH
7	7	10 3/8	\$0.55
12	12	1	\$0.75

## CYCLOPS NAIL PULLER

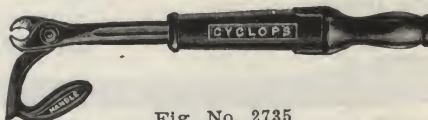


Fig. No. 2735

Improved design. It will pull more nails to the minute than any other on the market. Length 18 inches. Weight 4 1/2 lbs. Packed 12 in case.

★ NET EACH, \$1.50

## WRECKING BARS

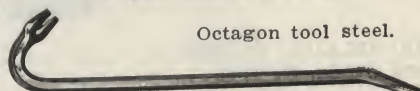


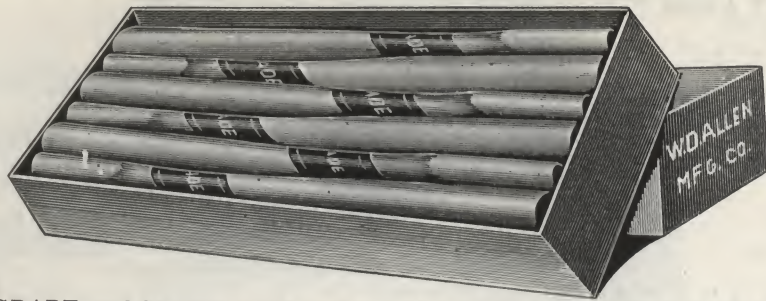
Fig. No. 2076

Octagon tool steel.

Size, in.	..... 1/2 x 12	3/4 x 24	1 x 30
★ NET EACH, 1 to 11.....	\$0.14	\$0.28	\$0.35
★ NET EACH, 12 or more.....	\$0.11	\$0.21	\$0.26



## TOOL HANDLES—A Complete Line



Our ALENCO GRADE tool handles are heavy second growth, perfect all white hickory, for use where a high grade handle is required. Our STANDARD grade is strictly second growth hickory, and is a serviceable grade, suitable for general use.

### ADZE EYE HAMMER HANDLES



Length, Inches	12	14
ALENCO GRADE	List Dozen \$3.90	\$3.90
Standard Grade	List Dozen \$2.40	\$2.40

### RIVETING HAMMER HANDLES



Length, Inches	16
ALENCO GRADE	List Dozen \$4.30
Standard Grade	List Dozen \$2.60

### BLACKSMITHS' HAMMER HANDLES



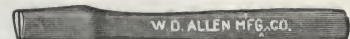
Length, Inches	14	16	18
ALENCO GRADE	List Dozen \$3.90	\$4.30	\$4.90
Standard Grade	List Dozen \$2.40	\$2.60	\$2.80

### MACHINISTS' HAMMER HANDLES



Length, Inches	12	14	16
ALENCO GRADE	List Dozen \$3.90	\$3.90	\$4.30
Standard Grade	List Dozen \$2.40	\$2.40	\$2.60
Length, Inches	18	20	24
ALENCO GRADE	List Dozen \$4.90	\$8.20	\$8.20
Standard Grade	List Dozen \$2.80	\$3.80	\$3.80

### HATCHET HANDLES



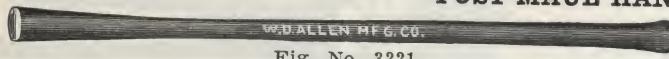
Length, Inches	12	14	15	16
ALENCO GRADE	Dozen \$3.90	\$3.90	\$4.50	\$4.50
Standard Grade	Dozen \$2.40	\$2.40	\$3.50	\$3.50

### SLEDGE, TOOL AND SPIKE MAUL HANDLES



Length, Inches	24	28	30	36
ALENCO GRADE	List Dozen \$9.80	\$9.80	\$11.80	\$12.80
Standard Grade	List Dozen \$6.60	\$6.60	\$7.60	\$8.80

### POST MAUL HANDLES



Length, Inches	30	36
ALENCO GRADE	List Dozen \$13.60	\$13.60
Standard Grade	List Dozen \$9.60	\$9.60

### RAILROAD PICK HANDLES



Length, Inches	36
ALENCO GRADE	List Dozen \$17.20
Standard Grade	List Dozen \$13.20

### CHOPPING AXE HANDLES



Fig. No. 3223, Single Bitt

Length, 36 In.	Single Bitt
ALENCO GRADE	List Dozen \$14.40
Standard Grade	List Dozen \$10.20

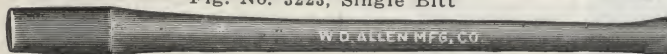


Fig. No. 3230, Double Bitt

Length, 36 In.	Double Bitt
ALENCO GRADE	List Dozen \$14.40
Standard Grade	List Dozen \$10.20

### FIREMAN'S AXE HANDLES

Length, 36 In.	List Dozen \$14.40
Standard Grade, 36 In.	List Dozen \$10.20

**DISCOUNT, All Tool Handles**.....

1 to 23	60% OFF
2 Dozen to 11 Dozen	60-10% OFF
12 Dozen or More	70% OFF



## CHAMPION SCREW DRIVERS REGULAR TYPE



Fig. 2010A

Size Blade	Length Overall	LIST DOZEN	Size Blade	Length Overall	LIST DOZEN
2 1/2 x 3/16	6 1/2	\$4.25	7 x 3/16	13 3/8	\$ 7.50
3 x 3/16	7	\$5.00	8 x 3/16	14 1/2	\$ 8.25
4 x 3/16	8 3/8	\$5.25	10 x 3/16	17	\$10.25
5 x 3/16	10 3/8	\$5.75	12 x 3/16	19	\$12.25
6 x 3/16	12	\$6.50			

**DISCOUNT** { 1 to 11 ..... 20% OFF  
12 or More ..... 35% OFF

## CHAMPION SCREW DRIVERS CABINET TYPE



Fig. 3904—Cabinet

Size Blade	Length Overall	LIST DOZEN	Size Blade	Length Overall	LIST DOZEN
2 1/2 x 3/16	6 3/8	\$4.25	6 1/2 x 3/16	10 1/4	\$ 6.85
3 1/2 x 3/16	7 1/2	\$5.00	8 1/2 x 3/16	13 1/4	\$ 8.10
4 1/2 x 3/16	8 3/8	\$5.10	10 1/2 x 3/16	14 1/2	\$ 9.35
5 1/2 x 3/16	9 1/4	\$6.10	12 1/2 x 3/16	16 1/4	\$11.10

**DISCOUNT** { 1 to 11 ..... 20% OFF  
12 or More ..... 30% OFF

## YANKEE PLAIN SCREW DRIVERS



Fig. 3691 (Mfrs. 90)

Blades of extra fine steel. Hardwood handles.

Size Blade, In.	Length Overall	LIST DOZEN	Size Blade, In.	Length Overall	LIST DOZEN
1 1/2 x 7/32	5 1/4	\$ 5.80	9 x 7/16	15	\$13.30
2 x 7/32	5 3/4	\$ 5.80	10 x 1/2	16 1/2	\$14.90
3 x 7/32	6 3/4	\$ 6.30	12 x 1/2	18 1/2	\$17.40
4 x 1/4	9 1/4	\$ 7.30	15 x 1/2	21 3/4	\$23.30
5 x 9/16	10 1/2	\$ 8.30	18 x 9/16	27	\$33.10
6 x 9/16	11 3/4	\$ 9.10	24 x 9/16	33	\$38.50
7 x 3/4	13	\$10.50	30 x 9/16	39	\$44.00
8 x 3/4	14	\$12.10			

**DISCOUNT** { 1 to 5 ..... 40% OFF  
6 or More ..... 40-10% OFF

## PERFECT HANDLE SCREW DRIVERS REGULAR TYPE



Fig. No. 1585

Size Blade	Length Overall	LIST DOZEN	Size Blade	Length Overall	LIST DOZEN
2 x 1/2	5 3/4	\$3.50	7 x 3/16	12 3/4	\$ 7.00
3 x 1/2	6 3/4	\$3.90	8 x 3/16	14 3/4	\$ 8.00
4 x 1/4	8 3/4	\$4.25	10 x 3/16	16 3/4	\$10.00
5 x 1/4	9 3/4	\$5.00	12 x 3/16	18 3/4	\$12.00
6 x 3/16	11 3/4	\$6.00			

**DISCOUNT** { 1 to 5 ..... LIST NET  
6 or More ..... 20% OFF

## PERFECT HANDLE SCREW DRIVERS MACHINISTS' TYPE



Machinists'—Fig. No. 1584

Length Overall	Blade Size	Point Width	Point Thickness	LIST DOZEN
7 1/2	3 1/2 x 3/16	3/16	3/64	\$ 8.00
8 1/2	4 x 3/16	3/8	1/16	\$ 9.00
9 1/2	4 1/2 x 3/16	1/2	5/64	\$10.00
10 1/2	5 x 3/16	3/4	5/64	\$11.00

**DISCOUNT** { 1 to 5 ..... LIST NET  
6 or More ..... 20% OFF

## CRESCENT SCREW DRIVERS



Fig. 4106—Mfrs. K602 to K612

### SQUARE ROD THROUGH HANDLE

Length Blade Inches	Length Overall Inches	Width of Point	Width of Square Rod	Weight Dozen Lb. Oz.	LIST EACH
2	6	1/4	1/4	2 — 3	\$0.40
3	7	1/4	1/4	2 — 7	\$0.45
4	8 3/4	1/4	1/4	3 — 7	\$0.50
5	9 3/4	5/16	5/16	4 — 12	\$0.55
6	10 3/4	5/16	5/16	5 — 0	\$0.60
8	14	3/8	3/8	9 — 0	\$0.80
10	16	3/8	3/8	10 — 2	\$1.00
12	18	3/8	3/8	11 — 0	\$1.10



Fig. 4107—Mfrs. K502 1/2 to K512 1/2

### CABINET OR ELECTRICIANS'

No flare on bit

Length Blade Inches	Length Overall Inches	Width of Point	Round Rod Inches	Weight Dozen Lb. Oz.	LIST EACH
2 1/2	6 1/2	3/16	3/16	1 — 6	\$0.35
3 1/2	7 1/2	3/16	3/16	1 — 9	\$0.40
4 1/2	8 1/2	3/16	3/16	1 — 13	\$0.40
5 1/2	9 1/2	3/16	3/16	1 — 14	\$0.45
6 1/2	10 1/2	3/16	3/16	2 — 0	\$0.45
8 1/2	12 1/2	3/16	3/16	2 — 5	\$0.50
10 1/2	14 1/2	3/16	3/16	2 — 8	\$0.55
12 1/2	16 1/2	3/16	3/16	2 — 11	\$0.60

<b>DISCOUNT</b>		<b>LIST NET</b>
1 to 5	.....	20% OFF
6 to 12	.....	33 1/2% OFF
13 to 143	.....	37 1/2% OFF
144 or More	.....	37 1/2% OFF

## M-F MOHAWK SHELburne SCREW DRIVER



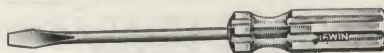
Fig. 4927. Mfrs. 7777

Blade is made of tough, hammer-forged steel, entirely hardened and tempered, nickel plated.

3 Inch Blade by 7/32 inches	.....	LIST DOZEN,	\$2.15
4 Inch Blade by 5/16 inches	.....	LIST DOZEN,	\$2.40
6 Inch Blade by 5/16 inches	.....	LIST DOZEN,	\$2.90
8 Inch Blade by 3/8 inches	.....	LIST DOZEN,	\$4.00

<b>DISCOUNT</b>		<b>LIST NET</b>
1 to 5	.....	15% OFF
6 or More	.....	25% OFF

## IRWINOID SCREW DRIVERS AMBER CRYSTAL CLEAR HANDLE



The transparent handles are indestructible, insulated, shock-proof and will withstand hammer blows, hard usage, grease and oil. Tool steel blade, highly polished.

Length Blade Inches	Point Width, Inches	Round Rod Inches	Weight Dozen Pounds	LIST EACH
				Fig. 5305—MACHINIST
2	3/16	3/16	1	\$0.35
3	7/32	7/32	1-1/4	\$0.40
4	1/4	1/4	2	\$0.45
6	5/16	5/16	2-1/2	\$0.60
8	3/8	3/8	6	\$0.75
10	3/8	3/8	7	\$0.95
12	3/8	3/8	8-1/4	\$1.25

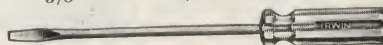


Fig. 5306—CABINET or Electricians

Length Blade Inches	Point Width, Inches	Round Rod Inches	Weight Dozen Pounds	LIST EACH
2-1/2	3/16	3/16	1	\$0.35
3-1/2	3/16	3/16	1-1/4	\$0.40
4-1/2	3/16	3/16	1-1/4	\$0.45
6-1/2	3/16	3/16	1-1/2	\$0.50
8-1/2	3/16	3/16	2	\$0.60
10-1/2	3/16	3/16	2-1/4	\$0.75



Fig. 5307—STUBBY—Short Handle and Short Blade

Length Blade Inches	Point Width, Inches	Round Rod Inches	Weight Dozen Pounds	LIST EACH
1	5/16	5/16	2	\$0.45

**DISCOUNT** { 1 to 5 ..... 20% OFF  
6 or More ..... 25% OFF



**YANKEE RATCHET SCREW DRIVERS**

Right hand or left hand ratchet or rigid adjustments made by moving shifter in ferrule.



Mfrs. 10Y. Shifter moves in direction of blade.  
Size in. 2 3 4 5 6  
LIST EACH, \$0.88 \$1.08 \$1.15 \$1.27 \$1.43



Mfrs. 15Y. With knurled washer to turn blade.  
Size, in. 2 3 4 5 6  
LIST EACH, \$0.97 \$1.01 \$1.05 \$1.10 \$1.14  
DISCOUNT { 1 to 5 ..... 40% OFF  
                  { 6 or More ..... 40-10% OFF

**YANKEE SPIRAL RATCHET SCREW DRIVER**

PLAIN. Fig. 1583

It drives or draws screws by pushing on handle, or by ratchet-movement of handle, and can be made as rigid as an ordinary screw driver by an ingenious locking device when closed. Three bits of different widths are included with each tool.

Mfrs. 30A. Standard pattern. Length with bit: extended—18½ inches; closed—13 inches.

LIST EACH, \$4.02

Mfrs. 31A. Heavy pattern. Length with bit: extended—25 inches; closed—16½ inches.

LIST EACH, \$5.40



QUICK RETURN. Fig. 3129

The plain patterns shown above with a spring added within the handle, making it come back quickly instead of being pulled back after each stroke, makes the driver easier in constant use, quicker and more convenient. The spring holds the bit in the screw slot so the driver can be operated with one hand.

Mfrs. 135. Light pattern. Length with bit: extended—13½ inches; closed—10 inches.

LIST EACH, \$3.55

Mfrs. 130A. Standard pattern. Length with bit: extended—20 inches; closed—14½ inches.

LIST EACH, \$4.59

Mfrs. 131A. Heavy pattern. Length with bit: extended—27½ inches; closed—19½ inches.

LIST EACH, \$6.20

DISCOUNT { 1 to 5 ..... 40% OFF  
                  { 6 or More ..... 40-10% OFF

**MILLERS FALLS SPIRAL RATCHET SCREW DRIVER****Plain**

Fig. No. 3174

A ratchet screw driver having spiral action for driving or withdrawing screws, right and left hand ratchet movements, and a device for making it a rigid screw driver.

Accurately machined steel spiral rod, manganese bronze nuts, hardened tool steel ratchet pawls, stained hardwood handle, complete with 3 special analysis steel screw driver blades.

Mfrs. No.	Length Extended	Length Closed	LIST EACH
61MF	20½ inches	14½ inches	\$3.20
62MF	26¼ inches	17¾ inches	\$4.30

**Automatic Return**

Fig. No. 3180

This tool is the same as Fig. No. 3174 above, with the addition of a spring in the handle, which makes it return automatically for the next stroke.

Mfrs. No.	Length Extended	Length Closed	LIST EACH
610MF	18 1/8 inches	12 5/8 inches	\$3.65
620MF	24 1/8 inches	16 1/8 inches	\$4.95

1 to 5 .... 15% OFF      6 or More .... 25% OFF

**YANKEE HAND AND BREAST DRILLS****With Right Hand, and Left Hand, and Continuous Ratchet Movement**

Quick shifter for five adjustments; plain drill; left hand ratchet; right hand ratchet; double hand ratchet, any movement of crank forward or backward causes drill to cut continuously; and with gearing locked to open or close chuck. Quick change of speed on double speed drills. Malleable iron frame. Steel spindle. Cut gears. Finished in dull black. Bright parts are nickel-plated. 3 jaw chucks.

**Mfrs. Y1530. Hand Drill**

Capacity up to ¼ inch drills. Single speed. 3 inch driving gear. Driven gears on spindle, 7/8 inch. Wood handle with ferrule is 4 inches long, large end 1½ inches diameter. Interior of handle may be used for magazine for drills. 10½ inches long. Weight, 1¼ pounds.

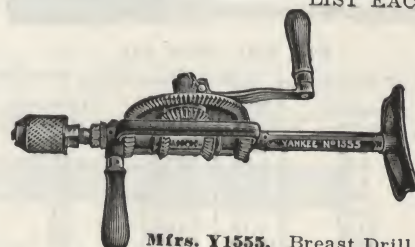
LIST EACH, \$7.00



Mfrs. Y1545. Hand Drill

Capacity up to ¾ inch drills. Double speed. 4½ inch driving gear. Driven gears on spindle, 1½ inch. Wood handle is 4½ inches long, 2½ inch diameter at large end. Interior of handle may be used for magazine for drills. 16 inches long. Weight, 4¼ pounds.

LIST EACH, \$13.40



Mfrs. Y1555. Breast Drill

Capacity up to ½ inch drills. Double speed. 5½ inch driving gear. Driven gears on spindle, 1½ inch. Built like a machine tool. 17 inches long. Weight, 6¾ pounds.

LIST EACH, \$15.40

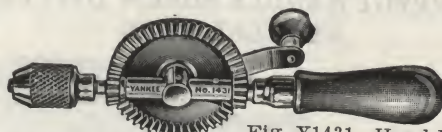
**Plain—No Ratchet Movement**

Fig. Y1431. Hand Drill

Mfrs. 1431. Holds drills to ¾ inch. Single speed. 9½ inches long. Weight 1½ pounds.

LIST EACH, \$4.00

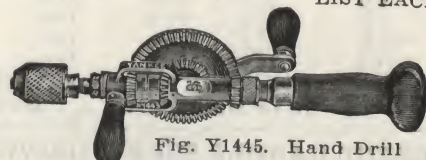


Fig. Y1445. Hand Drill

Mfrs. 1445. Holds drills to ¾ inch. Double speed. 15 inches long. Weighs 3½ pounds.

LIST EACH, \$9.00

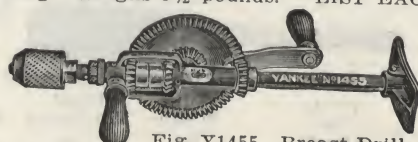


Fig. Y1455. Breast Drill

Mfrs. 1455. Holds drills to ¾ inch. Double speed. 16½ inches long. Weighs 5½ pounds.

LIST EACH, \$10.40

DISCOUNT { 1 to 5 ..... 40% OFF  
                  { 6 or More ..... 40-10% OFF



MILLER FALLS HAND DRILLS

Three jaw chuck. Red enameled large gear.

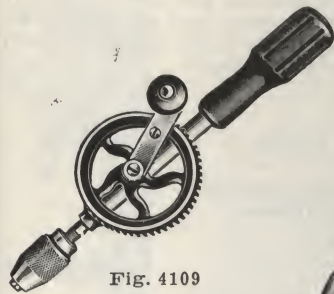


Fig. 4109



Fig. 4929



Fig. No. 3567



Fig. No. 5MF

Mfrs. 2500. 0 to 1/4 inch capacity for round drills. Smooth operation. Sturdy construction. Natural steel frame. Hardwood handle, black finish. Gears have machine-cut teeth. Steel pinion. Gear ratio is 4.15 to 1. Steel chuck. 10-5/8 inches long. Weighs 1 pound.

LIST EACH, \$1.10

Mfrs. 38. Capacity 0 to 3/8 inch. Die cast frame. Solid large gear and enclosed steel pinion. Three jaw chuck and protected springs. Handles mahogany lacquered hardwood. Hollow end handle with a screw cap. 14-7/8 inches long. Weight, 2-1/4 pounds.

LIST EACH, \$3.60

Mfrs. No. 5 1/2 B. Hand and Breast Drill. Capacity 0-3/8 inches. Two speeds. Spindle runs on ball bearings, end runs in a hardened steel cone bearing. Cut gears; steel pinion. Polished hardwood handle has large head. 14 3/4 inches long.

LIST EACH, \$6.00

Mfrs. 5MF. Capacity 0 to 1/4 inch. Single speed. 12 1/2 inches long. 3 jaw chuck. Protected spring. Cut gears. Steel pinions. Ball thrust bearings. Malleable iron frame. Detachable side handle. Hollow end main handle of cocobolo with 8 wood drill points 1/16 to 11/64 inch.

LIST EACH, \$4.40

M-F BREAST DRILL

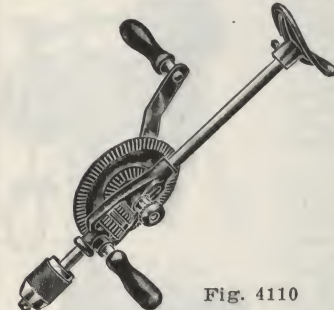


Fig. 4110

Mfrs. 7740. Capacity 0 to 1/2 inch round shank drills. Two speed. Quick positive gear shift. Steel shank connects the strong, compact frame with the breast plate. Smooth hard wood handles, mahogany finish. Gear teeth are machine cut. Two steel pinions, one for each speed. Gear ratios 3.56 to 1 and 1.48 to 1. Steel spindle is of ample length. All steel chuck with three hardened jaws. 16 1/2 inches long. Weighs 4 3/4 pounds.

LIST EACH, \$3.00

STANLEY CORNER BIT BRACES

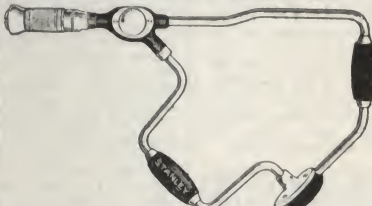


Fig. 5328. Mfrs. 992. With Interlocking Jaws

Corner braces work much faster in corners than a regular ratchet brace. The gear frame is made of phosphor bronze to eliminate wear. The gears are beveled and the teeth carefully cut. The whole mechanism is enclosed. Metal clad quill is fastened to the head by three screws. Nickel plated, metal-clad head. Cocobolo head and handles. Steel shell.

Sweep	Weight,	LIST
Inches	Pounds	EACH
8	3-7/8	\$10.40
10	4	\$10.40

IMPROVED RATCHET BRACE

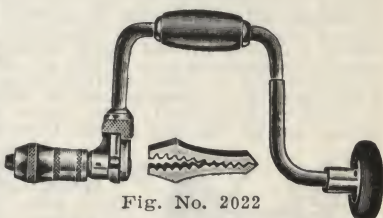


Fig. No. 2022

WITH BARBER CHUCK

An inexpensive nickeled brace for work that is not too refined. Stained hardwood head and handle. Exposed metal parts are polished and nickel plated. Barber chuck with improved malleable alligator jaws. Ratchet is semi-boxed. Handle has inserted metal rings. The head is screwed on and securely held by two screws. Plain bearing.

Mfrs. No.	423	422	421
Sweep, inches	8	10	12
Weight, pounds	2 3/4	2 3/4	2 3/4
LIST EACH	\$3.50	\$3.50	\$3.70

GOODSELL-PRATT AUTOMATIC DRILL



Fig. 4111

Bakelite handle holds 8 fluted drill points, 1/16 to 1/4 inches in diameter. Each drill is in a numbered compartment and is released through a hole in the rotating cap. Exposed metal parts are nickel plated and polished. 9 3/4 inches long. Weight, 6 ounces.

Mfrs. 188 LIST EACH, \$1.90

Extra set of 8 fluted drill points LIST SET OF 8, \$0.75

YANKEE AUTOMATIC DRILL



Fig. 1581

Has eight drill points, 1/16 to 1/4 inch, which are in plain sight when magazine is open. During the return movement of handle the drill point revolves backward to clear chips, etc. Entire length of tool, inclusive of drill point, 11 1/2 inches.

Mfrs. 41 LIST EACH, \$2.80

Extra Drill Points LIST SET OF 8, \$0.96

"HOLDALL" RATCHET BRACE

Ball Bearing Head

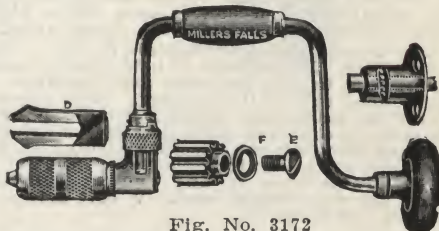


Fig. No. 3172

Holds bit shanks, round from 1/8 to 1/2 inch, No. 1 Morse taper shanks, and all sizes of bit stock and expansion bit shanks. Cocobolo head and handle. Exposed metal parts nickel plated. Master chuck made from solid bar steel. Jaws are made of high carbon steel and have parallel milled grooves which grip along their entire length. Boxed ratchet. Steel ratchet rings with machine-cut cams. Ball bearing head. Steel quill. Handle has inserted metal rings.

Mfrs. No.	733	732	731	730
Sweep, inches	8	10	12	14
Weight, pounds	2 3/4	3 1/4	3 1/4	3 1/2
LIST EACH	\$5.50	\$5.50	\$5.70	\$5.90

DISCOUNT 1 to 5 15% OFF 6 or More 25% OFF



## C-O UTILITY ELECTRIC BENCH DRILL—With Four Speeds

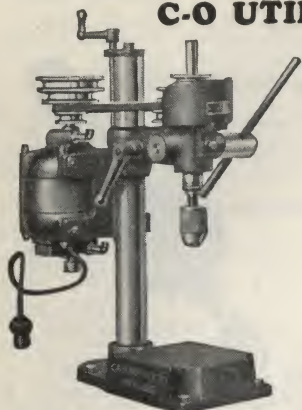


Fig. 4952. Mfrs. 25

V Belt Drive. Ready for the job. For use in garages, machine shops and the home. Adjustable head can be moved up and down to any desired height and can be revolved in a circle. By placing drill near end of bench and swinging head around, long pieces of shafting or large work can be drilled. Vertical type motor for 110 volt, 60 cycle, single phase, A. C.

Travel of head on column, 7½ inches.  
Drills to center of a 9-inch circle.  
Bores holes up to 1/2-inch diameter. 3 jaw chuck.  
Up and down run of spindle, 2½ inches.  
Greatest distance between spindle and base, 10½ inches.  
Distance from frame to center of spindle, 4½ inches.  
Spindle speeds—485, 995, 1755, 3105 R.P.M.  
Size base—planed, 6x6 inches.  
Size of column, 1¾ inches.  
Bench space, 11 by 6½ by 23 inches high.  
Weight: crated, 76, net, 62 pounds.

★ NET EACH, \$39.50

## C-O No. 33 BALL BEARING SENSITIVE SIX SPEED BENCH DRILL

Equipped with two annular ball bearings in the spindle cone pulley, ball bearing motor bracket and one ball thrust bearing on spindle which has a 3 inch travel. The use of SIX STEP SHEAVE TYPE PULLEYS gives a wide range of spindle speeds and with the heavy endless V-Belt ample power is transmitted to drive drill to its full capacity of 1/2 inch. A simple belt tightener is provided by means of a sliding member to which the motor is attached. By use of a double hinged motor bracket the belt can be readily changed to any of the six steps. The column is turned and a heavy slotted table is provided with table rest. The spindle and the table rest are bored in perfect alignment. The table and rest can be swung out of the way so the base can be used.

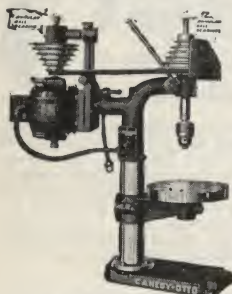


Fig. 5287. Mfrs. 33

Three wire rubber covered cord and three-way plug.

Spindle speeds: 450, 770, 1165, 1675, 2365, 3540 RPM. Drills to center of 10 inch circle. Capacity, 0 to 1/2 inch. Greatest distance spindle to table, 11-1/2 inches; greatest distance spindle to base, 16-1/2 inches; up and down run of spindle, 3 inches; up and down run of table, 8-1/2 inches; diameter of round table, 9-1/4 inches; distance column to spindle, 5-1/4 inches; planed surface of base, 8x9 inches. Height, 31-1/2 inches. Floor space, 8-1/4x14-1/4 inches. Shipping weight, 158 pounds.

110 Volt, 60 Cycle, 1 Phase. . ★ NET EACH, \$75.50

## C-O BALL BEARING SENSITIVE BENCH DRILL

For metal or wood drilling, sanding, mortising, grinding, and routing. It is built to produce accurate work. Completely equipped—"Ready For The Job."

Extra large double row ball bearings in the spindle cone pulley and two annular ball bearings in the double splined spindle. Key chuck up to 17/32 inch capacity, or No. 1 Morse Taper Spindle, when specified, at the same price. 5 step sheave pulley for V-belt and can be quickly changed. Heavy slotted, accurately machined table can be tilted to any desired angle, right or left.

Drills holes up to 17/32 inches; drills to center 16-1/4 inches; Speeds, 5200, 2835, 1700, 917, 460 RPM.; travel of spindle, 4-5/8 inches; working surface of table, 10x10 inches; working surface of base, 10x10 inches; maximum height with spindle raised, 39 inches; least diameter of spindle, 5/8 inch; maximum distance from chuck to table, 11 inches; diameter of column, 3 inches; maximum distance from chuck to base, 17 inches. Shipping weight, 120 pounds; shipping weight of motor, 30 pounds. 110 volt, 60 cycle, 1 phase.

★ NET EACH, \$50.75

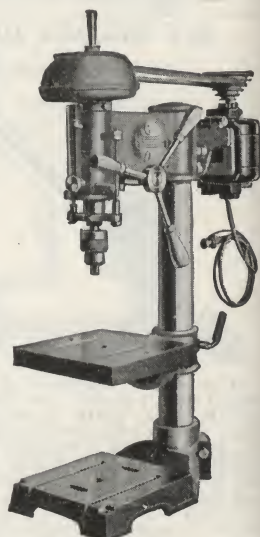


Fig. 5288. Mfrs. 16

## BUFFALO HEAVY DUTY PRODUCTION DRILLS

Gives long life, accurate, speedy operation and maximum facility in operating. As a metal-working tool, it is entirely competent to do manufacturing. For small diameters which run to 10,400 using 3400 r.p.m. motor-sensitivity and convenience make high productivity and low drill cost. For large diameters—full weight and rigidity assure clean quick holes.

Morse taper spindle available with No. 1 taper in place of standard at no extra cost. The spindle is held rigidly against end play and vibration; running true in two precision ball-bearings. Pulley is carried on extra large double row ball bearings. This prevents canting, allows spindle to carry no load—only smooth driving power is transmitted to spindle. Feed is by special cut rack and pinion, giving a smooth rolling motion. Graduated stop-bar provides for feeding to required depth. Three-spoke feed wheel with comfortable hand knobs. Automatic quick-return of spindle. Table tilts to any angle. Full section table arm and table bearing are rigid under load. V belt drive. Motor is 60 cycle, 110 volt. Cord, plug, and switch.

### Type

	BENCH	FLOOR
Drills holes up to, inch.....	1/2	1/2
Drills to center of circle, inch.....	15-1/4	15-1/4
Five speeds, R.P.M.....	5200, 2700, 1530, 840 and 450	Same
Feed travel, inches.....	4-1/2	4-1/2
Working surface of table, inches.....	10x11	10x11
Working surface of base, inches.....	10x10	10x10
Maximum height spindle raised, inches.....	38	.....
Least diameter of spindle, inches.....	5/8	5/8
High grade, geared chuck, inches.....	0 to 1/2	0 to 1/2
Maximum distance chuck nose to table.....	12	42
Diameter of column, inch.....	2-3/4	2-3/4
Maximum distance chuck nose to base.....	17	47
Overall height, inches.....	.....	70
Shipping weight, pounds.....	108	162

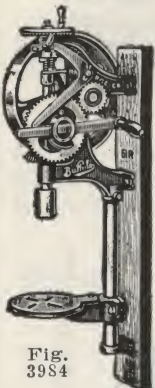
★ NET COMPLETE WITH MOTOR .....\$51.50 \$58.50  
★ NET WITHOUT MOTOR .....\$38.00 \$45.00



Fig. 4930. Mfrs. 15



**BUFFALO BALL BEARING POST DRILLS**



Mfrs. 61R. Useful in every shop. Sturdy and well made. Cast iron frame. All bearings bored and reamed, assuring smooth easy running. Shaft and spindle are of steel, heavy and carefully finished. Accurately fitted gears and a medium weight flywheel aid. Combination cast iron table and fork is adjustable to any position up and down. Ball bearing end thrust eliminates 90° friction.

Drills to center of 11-1/2 inch circle.

Drills holes up to 5/8 inch. 7/8 inch spindle diameter. Run of feed, 3 inches. Run of table, 9 inches. Length overall, 32 inches. Spindle bored for 1/2 inch straight shank bits. Can be bored also for 41/64 inch, 5/8 inch or Nos. 1 or 2 Morse Tapers at an extra charge. Net weight, 55 pounds.

★ **NET EACH, \$8.00**

Mfrs. 614R. For continuous, hard usage. Sturdy cast iron frame with a steel shaft and spindle, accurately machined, fitted and finished. Bearings are bored and reamed in the solid metal frame. Two feeds, hand and automatic. Automatic feed is adjustable to three speeds. Round, slotted table.

Drills to center 14 inch circle. Drills holes up to 1-1/4 inch. 1 inch spindle diameter. Run of table, 10-1/4 inches. Run of feed, 3 inches. Length overall, 38 inches. Furnished with chuck for 1/2 inch straight shank bits. Can also be bored for 41/64 inch or Nos. 1, 2 or 3 Morse Taper at an extra charge. Net weight, 83 pounds.

★ **NET EACH \$15.00**



Fig. 3985



Fig. 3986

**BUFCO FORGE**

**For Agricultural Implement Work. For Occasional Repair Work. For Rivet Heating**

Mfrs. 061. For agricultural implement work, occasional repair work and rivet heating. An accurate stamped steel gear and fan case furnish the air for the heavy one-piece drawn steel hearth. Bronze bushings. Fan has a 5 1/2 inch pressed steel wheel. Mounted on three strong jointed legs and will stand firmly on uneven ground. Shipped knocked down. 18 inch diameter hearth, 3 inches deep. Windshield type hood. Shipping weight, 48 pounds.

★ **NET EACH, \$8.50**

**BUFFALO RIVET FORGES**



Fig. 4953

One-piece unbreakable, all steel hearth, pressed out of heavy steel plate by enormous presses. Is strong, and light in weight. Four heavy pipe legs widely spread at the bottom and securely fastened at top and center. Blowers are mounted so that they can be taken off in a minute or two, in fact, the whole forge can be readily knocked down for transportation. Gear ratio 47-1/2 to 1. Fan case is 12 inches in diameter. Net weight, 96 pounds.

★ **NET EACH, \$36.00**

**BUFFALO FORGES**



Fig. 3988

With large, one-piece, seamless, heavy gauge steel hearth. No seams nor sharp corners to collect moisture and rust. Top of the hearth is turned back to form a broad flange, strengthening the whole forge and forming a convenient tool rest. Heavy steel angle legs, securely braced with steel. With blower having a gear ratio of 47-1/2 to 1. Fan case diameter is 12 inches. Hearth is 24 by 30 by 3 inches. Water tank furnished only when specified at a Net Extra charge of \$6.00.

Mfrs. No.	Hood	Weight Pounds	★ NET EACH
735H	Half	107	\$37.50
735	None	97	\$33.00

**BUFFALO OIL-BURNING FORGE**



Fig. 3989

An easily controlled and safe method of heating rivets where compressed air is available. No sparks. Rivets are always in plain view and held at the proper temperature. Impossible to burn the rivets. Welded steel tank with steel fire chambers lined with 2 inches of refractory material of the best quality. Worn-out linings quickly replaced. Air is supplied to the tank through a single connection which furnishes pressure for the oil supply as well as air for the atomizer. Burns kerosene, distillate, or any fuel oil.

Size, Number	1	2
Height to chamber top	43	45
Chamber height, in....	11 1/2	14 1/2
Inside diameter, in....	7	10
Inside height, in....	6	8
Fire opening, in....	3 5/8 x 5 1/4	4 x 6
Tank capacity, gallons	12	18
Shipping weight, lbs..	175	260

★ **NET EACH . . . \$65.00 \$90.00**



## BUFFALO VOLUME FANS

Can Be Used Either As a Blower  
Or Exhauster

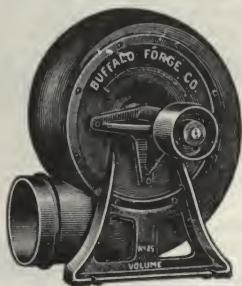


Fig. 3990

Can be adjusted for exhaust to eight different positions as required, and to either clockwise or counter clockwise rotation. Can be used as either a blower or exhauster. Side plates and feet are cast in one piece. Heavy duty, dust-proof ball bearings with deep raceways in both inner and outer rings, insure efficient, trouble free running. Rigid, compact and will resist deterioration from moisture, heat, acid fumes, or gritty dust.

Especially adapted for burning sawdust, conveying material, drying systems, emery and polishing wheels, exhausting smoke, forced draft, forge and furnace blast, fume exhaust, hollow blast grates, mine ventilation, shavings exhaust systems, toilet ventilation, vapor removal, and numerous other uses.

SPECIFY whether wanted for pulley drive or for direct motor connection. (No motor.)

Size No.	Outlet Diameter Outside	Inlet Diameter Outside	Pulleys Diameter and Face	★ NET EACH
21	4 1/2	5	3 x 2 1/2	\$36.00
22	5 1/2	6	4 x 3	\$48.00
23	7 1/2	8	4 x 3	\$58.50
24	8 1/2	9 1/8	5 1/4 x 3 5/8	\$74.25
25	10	10 1/2	5 3/4 x 3 5/8	\$93.00

## BUFFALO ELECTRIC BLOWER

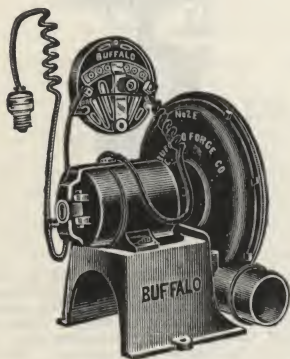


Fig. 3991

A small forge fire blower that can also be used on small furnaces, church organs, etc. Specify voltage: 110 or 220 volts, and specify cycles 25, 30, 40, 50 or 60 cycles.

Mfrs. No.	R.P.M.	Diam. Outlet	Ht. In.	★ NET EACH
<b>Variable Speed—6 Speed Regulator</b>				
2EV	650-2600	3	15	\$40.00
2EHV	800-3400	3	15	\$50.00
<b>Constant Speed</b>				
2EC	1750	3	15	\$40.00
2EHC	3000	3	15	\$50.00
3EC	3400	4	17	\$60.00
4EC	3400	5	20	\$88.00

## BUFFALO BABY CONOIDAL FANS

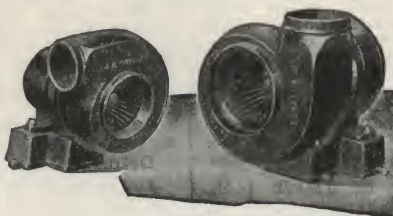


Fig. 4949

High efficiency multiblade with blast wheel. Housing is cast iron and can be swung around to discharge in any desired direction. This fan furnishes a large volume of air at a relatively low pressure with moderate speed. The wheel is accurately balanced, assuring a smooth-running, noiseless machine.

It is unexcelled for all kinds of drying and cooling purposes; for supplying fresh, cool air; and for exhausting smoke fumes, foul air, etc.

Cord and plug are furnished; no expense for installing, simply attach to an electric light socket. Outfits are furnished with 110 or 220 Volt D.C. motors and 110 or 220 volt single phase, 60 cycle A.C. Motors. Larger sizes.

Size No.	1	2	3
R.P.M.	1750	1750	1750
Cu. Ft. Min.	75	160	500
H. P. Motor	1/30	1/15	1/4
Shp. Wt. Lbs.	40	55	115
★ NET	\$31.50	\$35.00	\$49.00

## BUFFALO ARMOR-PLATE COMBINATION PUNCH AND SHEARS

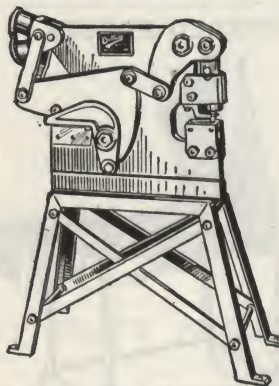


Fig. 4950

These hand power combination machines have "ARMOR-PLATE" frames, which have a tensile strength of 75,000 pounds. (Over seven times stronger than cast-iron.)

The leverage is simple and powerful. The knives, punches and dies are of the best quality crucible steel, carefully ground and tempered. The punches and shears on these machines do clean, accurate work up to their full capacities. Extra heavy angle iron stand.

No. 2B	No. 103B	No. 104B
Punches, Diameter and Thickness	Punches, Diameter and Thickness	Punches, Diameter and Thickness
1/4 x 1/4	5/8 x 3/8	1 1/2 x 1/2
Shears Flats, Width and Thickness	Shears Flats, Width and Thickness	Shears Flats, Width and Thickness
2 x 9/16	2 1/2 x 1/2	3 x 3/4
Punches Furnished, Inches		
1/8, 3/16, 1/4	1/4, 5/16, 3/8	1/4, 3/8, 1/2
Size Throats, Inches		
3/4	4	5 1/4
Net Weight, Pounds		
120	200	362
★ NET EACH	\$85.00	\$120.00

## BUFFALO BENCH TYPE SPLITTING SHEARS



Fig. 3993

Mfrs. 14. A strong, efficient hand shear that occupies very little bench space. 6 inches long. 5 1/4 inches high (without handle). High grade drop forged frame. Leverage is so powerfully compounded that it will cut 16 gauge sheets, taking 1 1/4 inch cut each stroke. Will shear 3/4 by 1/4 inch flats in a single stroke. Will cut wire up to No. 0. Shipping weight, 20 pounds.

★ NET EACH, \$9.00

Mfrs. 19A. Powerful compounded leverage. Shears and slits sheets up to 12 gauge. Cuts rounds up to 7/16 inch. Cuts flats up to 3/4 by 1/4 inch. Will cut wire up to No. 0000. Will cut No. 14BX Cable. 4-3/16 inch knife. Shipping weight, 40 pounds.

★ NET EACH, \$26.00

## STEEL SLITTING SHEAR

Capacity  
3-16 Inch x 2 Inch Bars  
10 Gauge Sheets

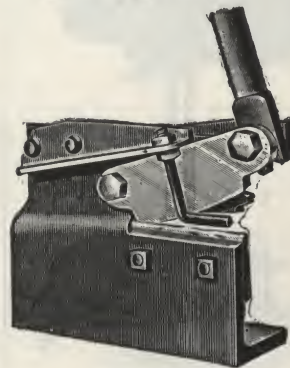


Fig. No. 2877

Indispensable for slitting sheet steel and for cutting steel bars, band iron, brake band lining, belting, etc. Pressed steel construction. Shear blades made of highest grade crucible steel. Equipped with adjustable hold-down. All parts interchangeable. Weight, 22 lbs. For the manufacturer, repairer, blacksmith, hardware dealer, or any place where cutting and shearing is required. Saves time and money. Often more work can be done with it in ten minutes than could be done in an hour by hand.

★ NET EACH, \$15.00



COLD CHISELS



Fig. No. 1532

Furnished in two grades. The superior grade is forged from genuine crucible tool steel. The standard grade is supplied for those wanting a low priced chisel for ordinary use. Cutting edge is slightly larger than size of steel.

Order by diameter of steel

Diam. of Steel, In.	Length, In.	Standard Grade	Superior Grade
		★ NET DOZEN	★ NET DOZEN
1/4	5	\$1.30	\$2.16
3/8	5 1/2	1.50	2.16
1/2	6	1.80	3.48
5/8	7	2.55	4.20
3/4	7 1/2	3.20	5.40
7/8	8	4.80	8.40
1	8 1/2	7.00	9.60

ROUND NOSE CHISELS



Fig. No. 1534

Forged from genuine crucible tool steel

Order by size of cutting edge

Cutting Edge, In.....	1/4	3/8	1/2	5/8
Diam. of Steel, In.....	1/2	3/4	7/8	1
Length, In.....	7	7	7 1/2	7 1/2
★ NET DOZEN	\$3.72	\$4.68	\$6.24	\$9.24

CAPE CHISELS



Fig. No. 1535

Forged from genuine crucible tool steel.

Order by size of cutting edge.

Cutting Edge, In.....	1/4	3/8	1/2	5/8
Diam. of Steel, In.....	1/2	3/4	7/8	1
Length, In.....	7	7	7 1/2	7 1/2
★ NET DOZEN	\$3.72	\$4.68	\$6.24	\$9.24

DIAMOND POINT CHISELS



Fig. No. 1536

Forged from genuine crucible tool steel.

Order by size of cutting edge.

Cutting Edge, In.....	1/4	3/8	1/2	5/8
Diam. of Steel, In.....	1/2	3/4	7/8	1
Length, In.....	7	7	7 1/2	7 1/2
★ NET DOZEN	\$3.72	\$4.68	\$6.24	\$9.24

PLUMBERS' CHISEL



Fig. No. 1537

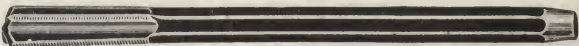
Forged from genuine crucible tool steel.

All 12 inches long.

Order by size of cutting edge.

Cutting Edge, In.....	1	1 1/4
Diam. of Steel, In.....	3/4	1
★ NET DOZEN	\$8.40	\$9.60

STAR DRILLS



THIRTY-THREE SIZES

Three Lengths—12 Inch, 18 Inch and 24 Inch.  
Eleven Point Sizes—1/4 to 1 1/4 Inch Inclusive.



Fig. 1538

Forged from genuine crucible tool steel.  
Order by size of the point and the length.

★ NET DOZEN

Length, Point Size	12 Inch	18 Inch	24 Inch
1/4 Inch	\$ 3.36	\$ 4.80	\$ 5.64
5/16 Inch	4.20	5.64	6.12
3/8 Inch	4.20	5.64	6.12
1/2 Inch	5.04	6.48	7.20
5/8 Inch	5.64	7.80	9.24
3/4 Inch	6.72	9.60	12.36
7/8 Inch	10.20	13.44	16.80
1 Inch	13.44	16.80	20.64
1 1/8 Inch	13.44	16.80	20.64
1 1/4 Inch	16.80	25.20	33.60
1 3/8 Inch	16.80	25.20	33.60

BULL POINTS



Fig. No. 3362

Tool steel, hardened and tempered. Octagon shape.  
Order by diameter and length.

Diameter, In.....	1	1 1/4	1 1/2
Length, In.....	12	18	24
★ NET EACH	\$0.75	\$1.38	\$2.25

DRIFT PUNCHES



Fig. No. 3067

Forged from genuine crucible tool steel.

No. ....	20	30	50	80
Point, in. ....	5/32	5/16	3/8	1/2
Length, in. ....	7	9	9	12
Taper, in. ....	5	6	7	9
Diam. of steel, in. ....	1/2	1/2	5/8	3/4
★ NET EACH	\$0.33	\$0.43	\$0.50	\$0.73
★ NET DOZEN	\$3.60	\$4.80	\$5.40	\$7.80

EXTRA LONG PIN PUNCH

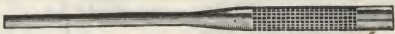


Fig. No. 2827

Nine in. long, made of 1/2 inch special steel, in four sizes only. Diam. of points:

5/32 in., 3/16 in., 1/8 in., 1/4 in.

Specify diam. of point on order.

★ NET EACH, \$0.35

★ NET DOZEN, \$3.60

DRIVE PIN PUNCHES

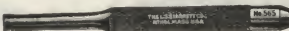


Fig. 565S

Made of good quality steel, neatly shaped, hardened and polished, with knurled centers.

Length of each size, 4 inches. Diameter of points: A, 1/16 inch; B, 3/32 inch; C, 1/8 inch; D, 5/32 inch; E, 3/16 inch; F, 1/4 inch; G, 5/16 inch; H, 3/8 inch.

Packed one dozen of a size, or one dozen assorted sizes in plain box.

★ NET EACH, \$0.25

★ NET DOZEN, \$2.40

Drive Pin Punch Set

Set of eight (one of each size) in round wooden box.  
★ NET SET, \$1.80



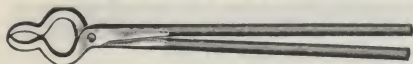
**PICK-UP TONGS**

Fig. No. 1548

24 inches long, weight 2½ lbs. per pair.

★ NET EACH, \$ 1.30  
★ NET DOZEN, \$13.00

**GAD TONGS**

Fig. No. 1549

Length 20 in., weight per pair 2½ lbs.

★ NET EACH, \$1.00  
★ NET DOZEN, \$9.85

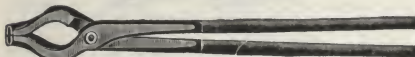
**BOLT TONGS**

Fig. No. 1661

For holding bolts and round iron. When ordering, give size of iron to be held, not length of tong.

For Iron Inch	Length Inch	Weight Pair, Lbs.	★ NET EACH	★ NET DOZEN
¾	18	1 ½	\$0.95	\$9.25
¾	20	2 ½	\$1.00	\$9.85
1	20	2 ½	\$1.00	\$9.85
1 ½	22	3 ½	\$1.15	\$11.45
2	22	3 ½	\$1.15	\$11.45
2 ½	24	3 ½	\$1.20	\$12.00
3	24	3 ½	\$1.20	\$12.00

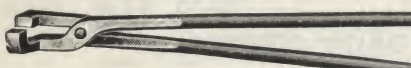
**PICK TONGS**

Fig. No. 1551

22 inches long, weight 4 lbs. per pair.

★ NET EACH, \$ 1.45  
★ NET DOZEN, \$14.40

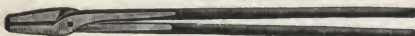
**STRAIGHT LIP TONGS**

Fig. No. 1660

Length Inches	Weight per Pair, Lbs.	★ NET EACH	★ NET DOZEN
16	1 ½	\$0.75	\$7.50
18	2	\$0.80	\$7.80
20	2 ½	\$0.85	\$8.25
22	3	\$0.90	\$8.70

**CROW BARS**

Fig. 279

56 inches...★ NET EACH, \$2.10

**ANVILS**

Solid tool steel face thoroughly welded to cast iron body of anvil. Blacksmith pattern. Guaranteed.

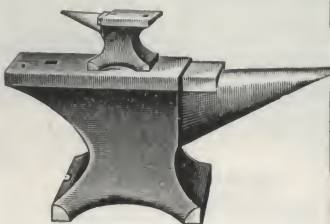


Fig. 1662

Appr. Lbs.	LIST EACH	Appr. Lbs.	LIST EACH
5	\$6.00	100	\$16.00
10	\$7.00	110	\$18.00
15	\$7.50	120	\$20.00
20	\$8.00	130	\$22.00
30	\$9.00	140	\$24.00
40	\$10.00	150	\$26.00
50	\$11.00	160	\$28.00
60	\$12.00	175	\$31.00
70	\$13.00	200	\$35.00
80	\$14.00	225	\$38.00
90	\$15.00	250	\$40.00

DISCOUNT . . . 40% OFF

**SLEDGES**

Fig. No. 2206

Carried in stock in the following sizes: 4, 5, 6, 8, 10, 12 pounds.

4-5 Pound ★ NET LB., \$0.18  
Others sizes ★ NET LB., \$0.15



Fig. 1414

**BLACKSMITHS' VISES**

Designed and made by blacksmiths. Made from high grade forged steel with jaw properly tempered so as to prevent chipping or breaking. Cut thread on screw. Admirably adapted for any work requiring a vise capable of standing up under rough usage. Proper height for working at bench. All wearing parts are renewable.

**LIST PRICES EACH**

No.	Width of jaws Inches	Working Depth Inches	Vise Opens Inches	Approx. Weight Pounds	LIST EACH
35	4	3 ¼	3 ¾	35	\$10.00
50	5	4 ¼	4 ¾	50	11.50
70	5 ½	4 ¾	5 ¾	70	18.75
100	6	5 ½	6	100	27.50
150	7	6 ½	7	150	54.00
200	8	7 ½	8	200	84.00

DISCOUNT . . . 40% OFF

**BOILER MAKERS' TOOLS**

Fig. No. 1712

Beading Tools.

★ NET EACH, \$0.60

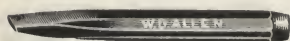


Fig. No. 1713

Caulking Tools.

★ NET EACH, \$0.50

**RAILROAD OR CLAY PICKS**

Adze Eye, Pick and Chisel Points



Fig. No. 1521

This is the standard dirt pick which is always sent in the 7 pound size unless otherwise specified.

5 Pound Size	★ NET DOZEN, \$8.40
6 Pound Size	★ NET DOZEN, \$8.85
7 Pound Size	★ NET DOZEN, \$9.15
8 Pound Size	★ NET DOZEN, \$10.50

**PICK HANDLES**

Fig. 3222 Standard

36 inch...★ NET EXTRA DOZEN, \$5.28

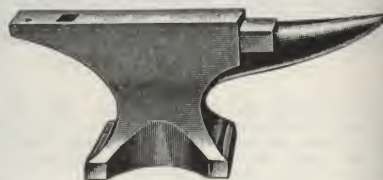
**ALL STEEL BLACKSMITHS' ANVILS**

Fig. No. 3252

Made in one solid piece from Swedish crucible steel casting of special analysis, and properly proportioned for maximum strength. No welded-on face plate to hammer loose.

All these one-piece Anvils are absolutely homogeneous and free from any cracks or welds. These anvils have a hard face, high tensile strength and yet exceptional elasticity. The temper is gauged to overcome chipping and yet preserve the toughness and resilient properties.

The large face is made so as to insure a smooth surface with the proper hardness to meet the requirements of general usage.

Size of Anvil Lbs.	Size of Face Inches	Length of Horn Inches	Size of Sq. Hole Inches	Size of Rd. Hole Inches	Ht. of Anvil Inches
100	14 ½ x 3 ¼	8 ¾	7 ½	1 ½	10 ½
125	15 ½ x 3 ¾	9 ¼	1	1 ½	10 ¾
150	16 ½ x 4	10	1	1 ½	11 ½
200	18 ½ x 4 ½	10 ¾	1 ¼	1 ½	12 ¾
250	19 ½ x 4 ¾	11 ¾	1 ¾	1 ½	13 ¾
300	20 ½ x 5	12 ¾	1 ¾	1 ½	14 ½
350	21 ½ x 5 ½	13 ¾	1 ¾	1 ½	15 ½
400	22 ½ x 5 ½	13	1 ¾	1 ½	15 ¾
450	23 ½ x 5 ¾	14 ¼	1 ¾	1 ½	16 ¾
500	24 ½ x 6 ½	14 ½	1 ¾	1 ½	16 ¾

100 to 300 lbs..Base Price.

★ NET POUND, \$0.19 ½

350 to 500 lbs..Base Price.

★ NET POUND, \$0.19 ½

**PICK MATTOCKS**

Fig. No. 1522

★ NET PRICES DOZEN

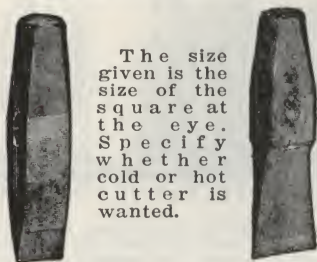
Average Weight	★ NET DOZEN
5 pounds	\$10.25
6 pounds	\$10.95

**HANDLES**

For Pick Mattocks listed above.

★ NET EXTRA DOZ., \$5.28



**BLACKSMITHS' ANVIL TOOLS**All bottom anvil tools regularly furnished with  $\frac{1}{16}$  in. shanks for 1 in. anvil hole.**Blacksmiths' Cutters**Fig. No. 1538  
Cold CutterFig. No. 1539  
Hot Cutter

The size given is the size of the square at the eye. Specify whether cold or hot cutter is wanted.

**★ NET PRICES EACH**

Size, Inches	Weight, Pounds	★ NET, EACH
$1\frac{1}{4}$	2	\$0.70
$1\frac{1}{2}$	3	.96
$1\frac{3}{4}$	5	1.56

**Flatters**Fig. No. 1540  
For smoothing and finishing flat forgings.**★ NET PRICES EACH**

Size, In.	Weight, Lbs.	★ NET, EACH
2	2	\$0.96
$2\frac{1}{2}$	$3\frac{1}{4}$	1.30
3	$4\frac{1}{2}$	1.64

**Set Hammers**

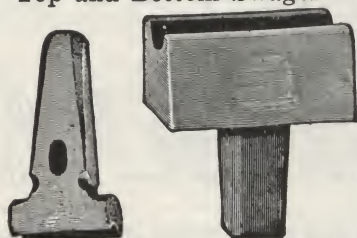
Fig. No. 1541

**★ NET PRICES EACH**

Size, In.	Weight, Lbs.	★ NET, EACH
$1\frac{1}{4}$	2	\$0.83
$1\frac{1}{2}$	$3\frac{1}{4}$	1.05

**Round Punches**Fig. No. 1542  
The size given is the size of the punch face.**★ NET PRICES EACH**

Size, In.	Weight, Lbs.	★ NET, EACH
$\frac{1}{4}$	$1\frac{1}{4}$	\$0.68
$\frac{3}{8}$	$1\frac{1}{4}$	.68
$\frac{1}{2}$	2	.68
$\frac{3}{4}$	$2\frac{1}{4}$	.85
$\frac{1}{2}$	$2\frac{1}{2}$	.88

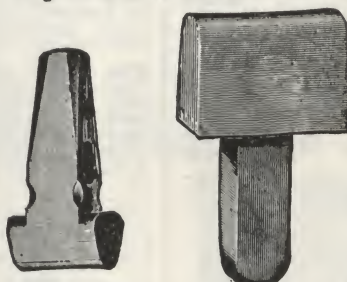
**Top and Bottom Swages**Fig. No. 1543  
Top SwageFig. No. 1544  
Bottom Swage

These are used for shaping, sizing and smoothing round forgings. The size given is the diameter of the round bar to which the swage will finish.

Specify whether top or bottom swage is wanted when ordering.

**★ NET PRICES EACH**

Size, In.	No. 1543 Wt., lbs.	No. 1544 Wt., lbs.	★ NET, EACH
$\frac{1}{4}$	$2\frac{1}{2}$	2	\$0.87
$\frac{3}{8}$	$2\frac{1}{2}$	2	.87
$\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	.92
$\frac{3}{4}$	$2\frac{1}{2}$	$2\frac{1}{2}$	.92
$\frac{1}{2}$	$3\frac{1}{4}$	$2\frac{1}{2}$	1.05
$\frac{3}{4}$	$3\frac{1}{4}$	3	1.05
$1\frac{1}{2}$	$4\frac{1}{4}$	$3\frac{1}{2}$	1.30
2	$4\frac{1}{4}$	$4\frac{1}{2}$	1.56

**Top and Bottom Fullers**Fig. No. 1545  
Top FullerFig. No. 1546  
Bottom Fuller

Fullers are used for necking and grooving forgings, and also for drawing down a forging to a smaller size.

**★ NET PRICES EACH**

Size, In.	No. 1545 Wt., lbs.	No. 1546 Wt., lbs.	★ NET, EACH
$\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	\$0.90
$\frac{3}{8}$	$2\frac{3}{4}$	$2\frac{1}{4}$	.90
$\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{1}{4}$	.90
$\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{1}{2}$	.92
1	3	$2\frac{1}{2}$	1.05
$1\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{1}{2}$	1.17

**Regular Hardies**

Fig. No. 1547

With square shank. Used for cutting off forgings.

**★ NET PRICES EACH**

Shank, In.	Bit, In.	Weight, Lbs.	★ NET, EACH
$\frac{5}{8}$	$1\frac{1}{2}$	1	\$0.44
$\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{4}$	.49
$\frac{1}{2}$	2	$1\frac{1}{4}$	.59
1	$2\frac{1}{4}$	2	.66
$1\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{1}{4}$	.83
$1\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	.90

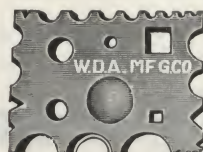
**CAST IRON SWAGE BLOCKS**

Fig. No. 1664

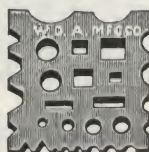


Fig. No. 1665

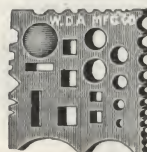


Fig. No. 1666

No.	Dimensions, Approx. In.	Wt., Lbs.
1	$3\frac{1}{2}$ x 10 x 14	100
2	$3\frac{1}{2}$ x 11 x 15	125
3	$4\frac{1}{2}$ x 11 x 15	145

★ NET POUND, \$0.07  $\frac{1}{2}$ 

No.	Dimensions, Approx. In.	Wt., Lbs.
$1\frac{1}{2}$	4 x $12\frac{1}{2}$ x $12\frac{1}{2}$	100
$2\frac{1}{4}$	4 x $13\frac{3}{4}$ x $13\frac{3}{4}$	135
$2\frac{1}{2}$	4 x 15 x 15	160
$3\frac{1}{2}$	$4\frac{1}{4}$ x 16 x 16	190

★ NET POUND, \$0.07  $\frac{1}{2}$ 

No.	Dimensions, Approx. In.	Wt., Lbs.
4	4 x 15 x 15	165
$4\frac{1}{2}$	$4\frac{1}{2}$ x 18 x 18	255
5	6 x 24 x 24	625

★ NET POUND, \$0.07  $\frac{1}{2}$ **SEAMLESS COPPER FERRULES**

Fig. No. 2627 Plain

All diameters are measured from inside.

**PLAIN, LIST PER 100**

Inside Diam. Inches	Width Inches	$\frac{1}{32}$ Thick List per 100	$\frac{1}{16}$ Thick List per 100
$1\frac{1}{2}$	$\frac{5}{8}$	\$ 9.30	\$....
$1\frac{3}{4}$	$\frac{5}{8}$	10.80	20.25
2	$\frac{5}{8}$	12.30	23.00
$2\frac{1}{4}$	$\frac{5}{8}$	13.50	25.25
$2\frac{1}{4}$	$\frac{3}{4}$	....	30.50
$2\frac{1}{2}$	$\frac{5}{8}$	15.00	28.25
$2\frac{1}{2}$	$\frac{3}{4}$	18.10	34.00
3	$\frac{3}{4}$	21.90	41.00
$3\frac{1}{4}$	$\frac{3}{4}$	23.70	....
$3\frac{1}{2}$	$\frac{3}{4}$	24.60	45.75
4	$\frac{3}{4}$	....	63.00

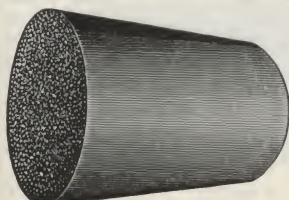
DISCOUNT ..... 50% OFF

**IRON FLUE PLUGS**

Fig. No. 2820

Used for plugging flues in an emergency.

Size	★ NET EACH
2 inch	\$0.40
$2\frac{1}{2}$ inch	\$0.50
3 inch	\$0.60
$3\frac{1}{2}$ inch	\$0.80
4 inch	\$1.00





## NEW EASY BOLT CLIPPER— SIDE CUTTER TYPE



Fig. No. 1667

New Easy Clippers are used for cutting curtain rods, fence and railing, wire, tin, copper, rods and many other uses in addition to cutting bolts. Made of the best stock and in the most careful manner, by skilled workmen. All parts are made in duplicate to standard gauges. Repair parts will always fit. Ample adjustment is provided for keeping the cutting edges in contact. If used according to directions they will last a long time and pay for themselves many times over.

### LIST PRICES EACH

Size No.	Length Inches	For Bolts, Inches	Extra Jaws List Pair	NEW EASY LIST EACH
10	10	3/16	\$2.00	\$4.00
14	14	1/4	\$2.20	\$4.50
0	18	5/16	\$2.50	\$5.50
1	24 1/2	3/8	\$3.20	\$7.00
2	30	1/2	\$4.00	\$8.75
3	36	5/8	\$5.00	\$11.25
4	42	3/4	\$6.80	\$15.50
Discount		Clippers	Jaws	
1 to 11		33 1/3% OFF	33 1/3% OFF	
12 or More		40% OFF	40% OFF	

## PORTER SWIVEL HEAD BOLT CUTTER

### SWIVEL HEAD

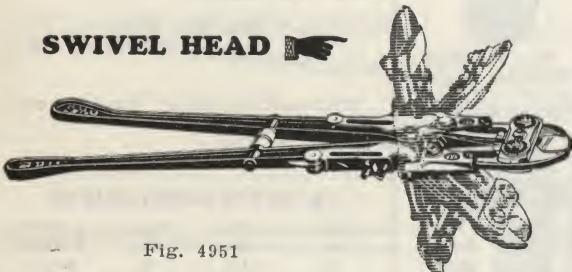
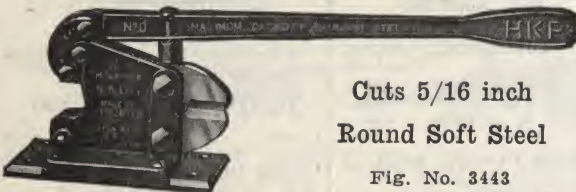


Fig. 4951

A powerful, durable, bolt clipper with WRIST ACTION. This cutter bends around the job and cuts where the work is. The head swings through a ninety degree arc on either side of the axis and with FULL POWER and EASE cuts bolts, rods, wire, etc. It eliminates awkward reaching, straining and bending of the workman. It will cut in places where no straight cutter could ever be used. Made with lever and toggle joint power multiplication. Ball and socket joints.

Size, Inches	18	24	30
Cuts Bolts, Inches	to 5/16	to 3/8	to 1/2
LIST EACH	\$7.75	\$9.50	\$11.75
1 to 11..	33-1/3% OFF	12 or More..	40% OFF

## PORTER'S BENCH CUTTER



Cuts 5/16 inch  
Round Soft Steel

Fig. No. 3443

(Mrs. No. 0.) Does the work of a giant, bolts down to the work bench, occupies a space 2 1/4 x 6 inches and cuts 5/16 inch round soft steel. Requires but one hand to operate, easy to handle, convenient to get at and stands up under hard use. Handle travels through an arc of 125°. Fitted with center cut jaws of special alloy steel. Bolts and nuts case-hardened. Steel base. Main working parts drop forged. Ample adjustment for wear.

★ NET EACH, \$6.65

## HYPOWA BOLT CUTTERS, NUT SPLITTER AND SHEAR CUTTER

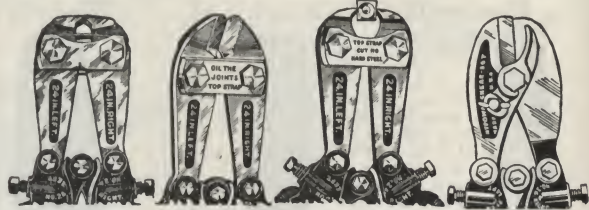


Fig. 3007

Fig. 3442

Fig. 3441

Fig. 3663

**Fig. 3007 End Cutter.** Jaws have cutting edge at a right angle to handles. Designed for cutting off short ends in corners and other places inaccessible to a side cutter. Simple adjustment.

**Fig. 3442 Angular Cutter.** Ideal for trimming work protruding from flat surfaces. Cuts with ease in positions where neither the side nor end cutter can be conveniently used.

**Fig. 3441 End Nut Splitter.** Splits nuts which may be rusted, cross-threaded or on headed up bolts. Edges of cutting jaws are placed at right angles to handles. Adjustments for splitting smaller nuts are easily made.

**Fig. 3663 Shear Cutter.** Makes a clean shear cut without excessive compression or distortion of materials. Cuts flat bars, strips, wire cable, etc. Leaves no ragged or frayed edges. Portable and easily operated. Powerful.

### LIST EACH

Fig. No.	Kind of Tool	14 Inch	24 Inch	36 Inch
3007	End Cutter	\$5.25	\$8.25	\$13.50
3442	Angular Cutter	\$5.25	\$8.25	\$13.50
3441	Nut Splitter	\$5.25	\$8.25	\$13.50
3663	Shear Cutter	\$7.50	\$11.00	\$15.50
1 to 11..	33 1/3% OFF	12 or More..	40% OFF	

## IDEAL SELF FEED TUBE CUTTER

Cuts off steel tubes with a bevel ready for heading.

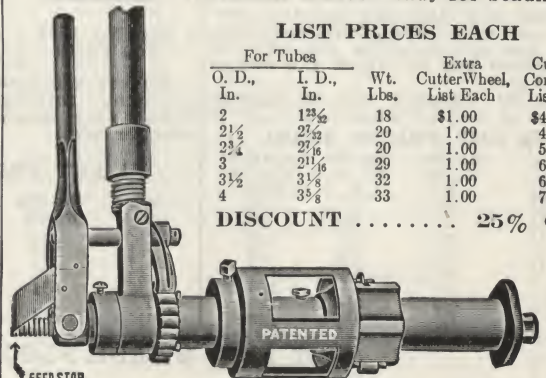


Fig. No. 1727

### LIST PRICES EACH

For Tubes		Wt. Lbs.	Extra Cutter Wheel, List Each	Cutter Complete, List Each
O. D., In.	I. D., In.			
2	1 1/2	18	\$1.00	\$40.00
2 1/2	2 1/2	20	1.00	46.00
2 3/4	2 1/2	20	1.00	50.00
3	2 1/2	29	1.00	60.00
3 1/2	3 1/8	32	1.00	68.00
4	3 3/8	33	1.00	70.00

DISCOUNT ..... 25% OFF

## BOILER TUBE EXPANDERS



Fig. 1726

Fig. 1725

### ROLLER TYPE

#### LIST PRICES

Out-side Diam. In.	Complete, List Each	Man-drels, List Each	Set of 3 rolls, List per Set
1 1/4	\$10.00	\$2.40	\$0.80
1 1/2	10.00	2.40	.90
2	10.00	2.70	1.10
2 1/4	14.00	3.50	1.35
3	18.00	4.00	1.60
3 1/2	23.00	5.00	2.00
4	30.00	6.70	2.50

DISCOUNT ..... 65%  
Repairs ..... NET

### SECTIONAL SPRING LIST EACH

Outside Diam. of Tube, In.	Thickness of Plate, In.	Complete, List Each	Extra Pins, List Each
1 1/4	3/8	\$12.00	\$2.00
1 1/2	3/8	12.00	2.00
2	3/8	12.00	2.30
2 1/4	3/8	12.00	2.30
2 1/2	3/8	15.00	2.70
2 3/4	3/8	15.00	2.70
3	3/8	22.00	3.10
3 1/2	3/8	30.00	3.90
4	3/8	33.00	4.70

DISCOUNT ..... 25%  
Repairs ..... NET



## REDINGTON COUNTING MACHINES



Fig. 2728  
FOR GENERAL USE  
COUNTS UP TO 400 EACH MINUTE

Recommended for general use on all types of machines except the largest and heaviest. Flanges on the back and bottom simplifies its installation on any machine. Will operate properly up to a speed of 400 each minute. Measurements, 3-3/4 inches across the face including flanges for attaching, 2-1/2 inches high and 2-1/8 inches deep. It is operated by the movement of the ratchet lever through an arc of about 45 degrees. It is constructed throughout of steel. May be set back to zero at any time quickly and easily. The numbers are easily read. Shipping weight, 1-1/2 pounds.

- MODEL A ..... ★ NET EACH, \$6.25  
MODEL AC With celluloid windows. ★ NET EACH, \$6.50  
MODEL L With lock and two keys. ★ NET EACH, \$7.25  
MODEL LC With lock, two keys and celluloid windows ..... ★ NET EACH, \$7.50

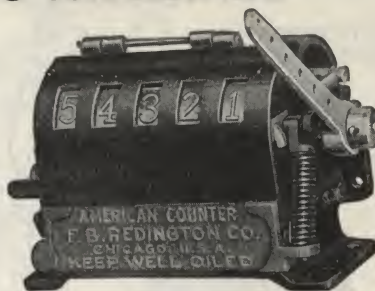


Fig. 4959  
FOR LARGE MACHINES  
COUNTS UP TO 175 EACH MINUTE

Constructed of cast and malleable iron and steel parts. A large rugged counting machine for use on any medium to large machines such as large and heavy punch presses, shears, etc. The flanges on the back and bottom simplify its installation. It will operate up to 175 each minute. It is 6 inches across the face including flanges for attaching, 3-1/2 inches high and 3 inches deep. The counter is operated by a movement of the ratchet lever through an arc of about 45 degrees. Lever maybe set in any one of four positions. It maybe set to zero or any desired number at any time simply and easily. 1/2 inch numbers, easy to read. Shipping weight 4-1/2 pounds.

- MODEL 1 ..... ★ NET EACH, \$8.25  
MODEL 1C With celluloid windows. ★ NET EACH, \$8.50  
MODEL 2 With glass window, lock, and two keys. ★ NET EACH, \$9.75

## VEEDER-ROOT COUNTING MACHINES HAND COUNTER

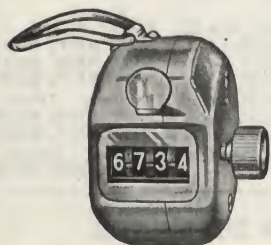


Fig. 4955

The counter of 1001 uses. To carry around. Counts things more accurately than by headwork or crude pencil tally. It fits the hand. Each press on the thumb-lever registers one on the dial. It sets back to zero from any number by turning the knob once around.

★ NET EACH, \$5.00

### SMALL RESET RATCHET COUNTER

This counter adds one for each oscillation of the lever through an angle of 40 to 45 degrees. Stops limit the lever movement to 45 degrees. If the shaft oscillates through an angle of less than 36 degrees, the figures remain stationary. A spring returns the lever to its initial position. One turn of the reset knob returns the dial to zero. 2-13/32 inches long, 1-7/16 inches wide, 1-9/32 inches high.

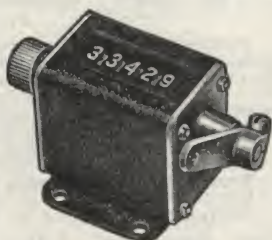


Fig. 4954

- |   |                      |
|---|----------------------|
| LEVER ON LEFT                             | LEVER ON RIGHT       |
| ZD8 .....Top Coming                       | ZD18 .....Top Coming |
| ZD3 .....Top Going                        | ZD13 .....Top Going  |
| ★ NET EACH .....\$6.00                    |                      |
| With Lock and Key .....★ NET EACH, \$8.00 |                      |



Fig. 4956  
ELM CITY COUNTER

The five figure counter is 7-1/4 inches long, 1-3/4 inches high, 1-1/4 inches wide. For general use. Polished brass case. Steel pinions, ratchet wheel and lever. The figures are plainly etched in black on white metal dials.

- ★ NET EACH
- |                          |        |        |        |        |
|--------------------------|--------|--------|--------|--------|
| Figures .....            | 3      | 4      | 5      | 6      |
| Individual Knob Reset .. | \$4.75 | \$5.50 | \$6.50 | \$7.50 |
| With Lock Bar,           |        |        |        |        |
| Lock & Key .....         | \$6.50 | \$7.50 | \$8.50 |        |
| Instantaneous Reset By   |        |        |        |        |
| Key .....                | \$6.00 | \$7.00 | \$8.00 | ....   |



Fig. 4957  
BRISTOL COUNTER

Overall dimensions of five figure counter, 10-3/4 inches long, 3-3/4 inches high, 1-3/8 inches wide. Cast iron cases. Iron and steel working parts. Large white dials with half inch plain figures in black, clean and easy to read.

- ★ NET EACH
- |                              |        |        |        |
|------------------------------|--------|--------|--------|
| Figures .....                | 4      | 5      | 6      |
| With Key Reset .....         | \$5.00 | \$6.00 | \$7.00 |
| With Lock Bar, Lock & Key .. | \$6.25 | \$7.25 | \$8.25 |

Fig. 4958

### ROCO COUNTER

Overall dimensions of the six figure counter, 7-3/8 inches long, 1-7/8 inches high, 1-3/8 inches wide. Lever type. A very high grade counter for counting royalties and similar purposes. It contains no springs except for returning the lever.

- ★ NET EACH
- |                              |        |        |
|------------------------------|--------|--------|
| Figures .....                | 5      | 6      |
| With Lock, Key Reset .....   | \$7.25 | \$8.25 |
| Without Lock, No Reset ..... |        | \$7.50 |



# ACME ADJUSTABLE SHIELDS

UNDERWRITERS' APPROVED

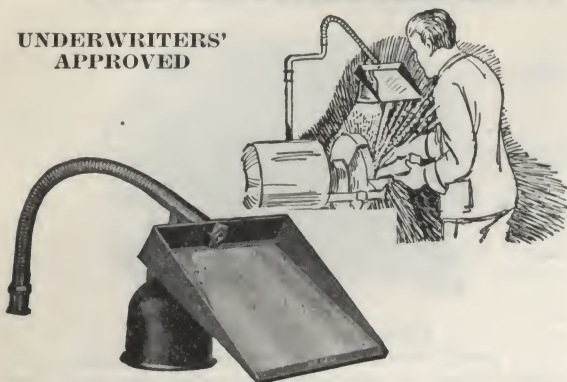


Fig. 4960

For permanent head and eye protection on grinding and buffing machines, lathes, planers, spot welders, etc. The heavy steel frame holds a 7 by 9 inch tough, non-shatterable glass shield.

With light attachment, no bulb, 3 foot cord, flexible arm and bracket. Instantly adjusted.

★ NET EACH, \$12.50

With flexible arm and bracket. Instantly adjusted. Without light attachment.

★ NET EACH, \$8.50

Stationary, non-movable arm. No light.

★ NET EACH, \$3.75

# UTILITY STONE FILE



Fig. 4962

A fast cutting stone file that can be used for all tools. 14 inches overall.

★ NET EACH, \$1.00

# CRYSTOLON SCYTHE STONES



Fig. 4961

Fast cutting. Produces a sharp edge with little effort. For sharpening sickles, scythes, etc.

10 by 1 by 5/8 inch.....★ NET EACH, \$0.25  
10 by 1-1/4 by 3/4 inch.....★ NET EACH, \$0.30  
12 by 1-1/4 by 3/4 inch.....★ NET EACH, \$0.35

# LOOSE GRINDSTONES



Fig. 1757

Specify grit, face, diameter and thickness. These grindstones are from the Berea district in Ohio. Extra charge for crating. To find weight multiply weight given in table by thickness in inches.

Diameter		Approx. Weight of Stone One Inch Thick
Feet	Inch	
2	0	36.650 Pounds
2	3	46.386 Pounds
3	0	82.464 Pounds
4	0	146.603 Pounds
5	0	229.068 Pounds
6	0	329.857 Pounds

★ NET POUND, \$0.05

Not bushed, Bushing is extra.

# HUNTINGTON EMERY WHEEL DRESSER



Illustration of Size 0—Fig. No. 1744

For dressing and truing emery wheels. Made from the best of gray iron. Machined accurately and true, jappanned black. Hardened steel pin and bushings. 1 in carton. Extra set of cutters only with size O Standard and size O Hooded.

Size No. and Type	Use On Wheels	For Wheels	Length Inches	Wt. Lbs.	★ NET EACH
0—Standard	Fine-Med.	Regular	11	1 1/4	\$0.60
0—Hooded	Fine-Med.	Regular	11	1 1/4	\$0.62
1—Hooded	Coarse	Large	12	2	\$1.00
2—Hooded	Coarse	Ext. Lg.	15	4 1/4	\$2.25



# EXTRA CUTTERS

Fig. 2650

Made from carefully selected steel, milled type only. Special hardening operation makes cutters unexcelled for toughness and durability. 1 Set of Cutters in a box.

No. 0. Standard type. Diam., 1 1/8 in. Hole, 1/4 in.  
Extra cutters, 100 or More Sets ..★ NET SET, \$0.12  
Extra cutters, 1 to 11 Sets ..★ NET SET, \$0.10  
Extra cutters, 12 to 99 Sets .....★ NET SET, \$0.05  
No. 1. Standard type. Fits Hooded Dresser. Diam., 1 1/2 in. Hole, 1/2 in.....★ NET SET, \$0.20  
50 or More.....★ NET SET, \$0.15  
No. 2. Standard type. Fits Hooded Dresser. Diam., 2 1/2 in. Hole, 5/8 in.....★ NET SET, \$0.65

# BORTZ ROUGH DIAMONDS

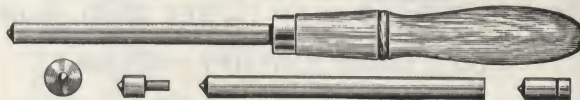


Fig. 4185

Indispensable for accuracy in dressing and truing grinding wheels. Tool consists of a steel bar with a Bortz Rough Diamond set in tip. Take light cuts of two or three thousandths only allowing diamond to touch wheel.

Hand Tool. 3/8 by 5 1/2 inches, 12 inches overall.  
Cincinnati Grinder Tool. 3/8 by 1 1/2 inches long.  
Head Grinder Tool. 3/8 by 4 inches long.  
Brown & Sharp Grinder Tool. 3/8 by 6 inches long.  
Lands Nib. 3/8 inch milled to 1/4 inch shank by 3/8 inch.  
Norton Nib. 3/8 inch by 3/8 inch long.

Size No.	Diameter of Wheel, Inches	★ NET EACH	Size No.	Diameter of Wheel, Inches	★ NET EACH
2	Small	\$7.00	6	12 to 16	\$15.00
3	Up to 6	\$8.00	8	16 to 18	\$20.00
4	6 to 8	\$10.00	10	Over 18	\$25.00
5	8 to 12	\$12.00			

# TUBULAR STEEL FRAME GRINDSTONE



Fig. No. 1758

Seat adjustable 4 inches to 5 inches vertically. Stone can be moved forward or backward on the frame. The frame being slightly flexible, it adjusts itself to uneven floors or surfaces. Ball-bearing journals. Frame is narrow at the top, making it convenient to apply power, and spread at base, giving greatest rigidity. Made in one size. Average weight of stone, 60 lbs. Frame will carry larger stones up to 28 inch in diameter.

Frame Complete, with stone.

★ NET EACH, \$8.00



# GRINDING WHEELS



Straight Face



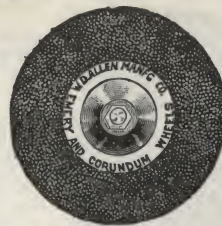
Regular Straight Face Wheels



Saucer Shape Wheels for Cutter Grinding

We furnish grinding wheels in two kinds of abrasive materials. One for steel grinding, and the other for cast iron. Each is made in many different combinations of grain and grade.

Unless the user knows definitely from former experience the grain and



Round Face



Round Face

grade best adapted to his purpose, it is always best to tell us what kind of work the wheel is to be used for and we will select the proper wheel.

On orders for grinding wheels be sure to specify the diameter of the wheel, the thickness and the size of hole, also the purpose for which they are to be used.

## STANDARD LIST PRICES STRAIGHT WHEELS—FOR VITRIFIED AND SILICATE BONDS

For Round Face or Saw Gumming Wheels Add 10% To List and Use Same Discounts  
Sizes Not Listed; Other Shapes; Bakelite and Other Bonds; Prices On Request

Thickness of Wheels in Inches

Diam. Inches	1/4	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
1	\$1.45	\$1.50	\$1.50	\$1.55	\$1.55	\$1.60	\$1.80	\$1.00	\$1.35	\$1.75	\$2.15	\$2.50	\$2.90
1-1/2	.50	.55	.55	.60	.60	.70	.90	1.10	1.55	1.95	2.35	2.80	3.20
2	.60	.65	.70	.75	.75	.85	1.10	1.30	1.80	2.25	2.70	3.20	3.65
2-1/2	.75	.80	.85	.90	.95	1.05	1.30	1.60	2.10	2.65	3.15	3.70	4.20
3	.90	.95	1.05	1.10	1.20	1.30	1.60	1.90	2.50	3.10	3.70	4.30	4.90
3-1/2	1.40	1.50	1.60	1.70	1.80	2.00	2.30	2.65	3.25	3.90	4.50	5.15	5.75
4	1.55	1.65	1.75	1.90	2.05	2.35	2.70	3.10	3.80	4.55	5.25	6.00	6.70
5	2.10	2.30	2.50	2.70	2.90	3.30	3.80	4.25	5.20	6.15	7.10	8.05	9.00
6	2.50	2.75	3.00	3.25	3.50	4.00	4.60	5.25	6.55	7.85	9.20	10.50	11.80
7	2.90	3.25	3.60	3.95	4.30	4.90	5.70	6.55	8.25	9.90	11.60	13.30	15.00
8	3.45	3.90	4.30	4.70	5.15	6.00	7.00	8.00	10.15	12.30	14.40	16.55	18.65
9	4.05	4.60	5.15	5.65	6.15	7.15	8.40	9.75	12.35	15.00	17.60	20.25	22.85
10	4.75	5.40	6.05	6.65	7.25	8.45	10.05	11.65	14.80	18.00	21.15	24.35	27.50
12	6.30	7.20	8.10	8.95	9.80	11.50	13.75	15.95	20.45	24.90	29.35	33.80	38.30
14	.....	.....	10.20	11.50	12.80	15.40	18.40	21.35	27.25	33.15	39.05	45.00	50.90
16	.....	.....	.....	.....	16.60	20.00	23.80	27.60	35.20	42.75	50.30	57.90	65.45
18	.....	.....	.....	.....	.....	25.20	29.90	34.65	44.10	53.55	63.05	72.50	81.95
20	.....	.....	.....	.....	.....	.....	36.75	42.55	54.15	65.70	77.25	88.85	100.40
24	.....	.....	.....	.....	.....	.....	52.55	61.00	78.10	95.15	112.25	129.30	146.40
26	.....	.....	.....	.....	.....	.....	.....	72.25	92.45	112.65	132.80	153.00	173.20
30	.....	.....	.....	.....	.....	.....	.....	97.45	124.60	151.75	178.90	206.05	233.20
36	.....	.....	.....	.....	.....	.....	.....	145.00	184.25	223.50	262.70	301.95	341.20

## DISCOUNTS

### ALLEN'S SILICATE WHEELS

Emery Silicate Wheels (for steel grinding).....	65% OFF
Carbide of Silicon Silicate Wheels (for cast iron grinding) .....	60% OFF
Net extra for wire web on round face silicate wheels only, 25c per wheel.	

## NATIONALLY ADVERTISED VITRIFIED WHEELS

<b>Carborundum Company's Wheels—</b>	
“Aloxite” (for steel grinding).....	60-5% OFF
“AA Aloxite” (for high speed steel and hard materials)—For surface work on cutting tools .....	55-5% OFF
“Carborundum” (for cast iron grinding).....	55-5% OFF
<b>Abrasive Company's Wheels—</b>	
“Borolon” (for steel grinding).....	60-5% OFF
“Electrolon” (for cast iron grinding).....	55-5% OFF
<b>Norton Company's Wheels—</b>	
“Alundum” (for steel grinding).....	60% OFF
“Crystolon” (for cast iron grinding).....	55% OFF
Special Style 38 (for High Speed Steel and Hard Materials).....	55% OFF
<b>Sterling Grinding Wheels—</b>	
“Sterlith” (for steel grinding).....	60-5% OFF
“Sterbon” (for cast iron grinding).....	55-5% OFF
“White Sterlith” (for hard and high speed steel grinding).....	55-5% OFF

## IMPORTANT INFORMATION FOR THE BUYER

**FINENESS** is dependent upon the size of the grains of the grinding material and is commonly known as the **GRAIN**. The different degrees of fineness or grain are indicated by numbers. For smooth finish, for example, a fine grain wheel should be used; for fast work, where finish is not important, a coarse grain wheel is required.

**HARDNESS**, as the term is understood by the makers, is the quality of resistance to crumbling. The degree of hardness, called **GRADE**, is indicated by letters. The selection of grade depends upon the character of the material to be ground. Generally speaking, the finer the wheel, the softer it should be. A wheel which is too hard heats the work, glazes, and will not cut. If it is too soft it cuts rapidly but wears away fast.



# HAND GRINDERS

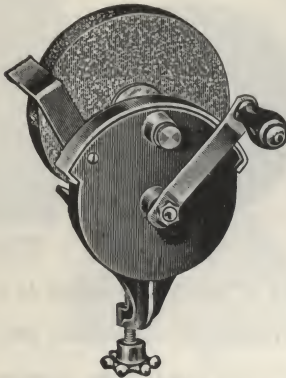


Fig. 4963

## Utility

### FOR LIGHT WORK

Sturdy, smooth running tool grinders for home or occasional shop use. The wheel is made of electric furnace abrasives and cuts fast and cool. One solid piece gear case with 4 bearings, oil tight and dust proof. Machine cut, broad face, grey iron gears; the gear teeth are strong, smooth and quiet running. Steel clamp screw with iron hand grip wheel. Steel crank with large wood grip. Steel work rest.

Model No.	Wheel Size Inches	Net Weight, Pounds	★ NET EACH
U4-3/4	4x3/4	3	\$0.82
U4	4x1	3-1/4	\$0.90
U5	5x1	4-1/2	\$1.20
U6	6x1	5	\$1.65

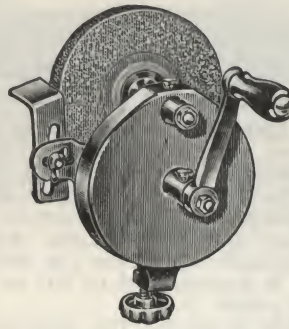


Fig. 2778

## Prairie

### FOR GENERAL USE

Strongly made, neat design and nicely finished. Enclosed and dust-proof gear case. Detachable clamp has sturdy steel clamp screw with notched iron hand grip. Quiet and smooth running, accurately machine cut helical gears. Spring cap oilers. Steel flanges. Heavy crank with large wood grip, positive fastening. Extra long bearings, are evenly divided, drilled, and reamed. Cold rolled steel shafts, accurately machined. With best grade vitrified grinding wheel. Guaranteed against defects in material and workmanship.

Model No.	Wheel Size Inches	Net Weight, Pounds	★ NET EACH
4	4x1	4-1/2	\$1.70
5	5x1	7-1/4	\$2.60
6	6x1	9-1/2	\$3.35
7	7x1	13	\$4.00

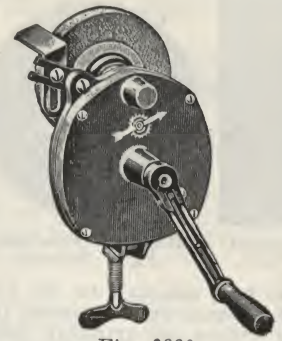


Fig. 3880

## Sturdibilt

### HIGHEST QUALITY

For constant and heavy work. Extra large and heavy gear case with long bearings, and absolutely oil tight. Machine cut spiral teeth on gear and pinion provide broad meshing surface, insuring smooth, quiet action and long wear. Ball bearing for pinion end thrust. Phosphor bronze sleeve type main bearing is adjustable to take up wear and may also be replaced. Steel clamp screw. Long sweep handle crank. Adjustable tool rest. Equipped with high-grade vitrified cool cutting medium-grit sharpening wheel. Finished in black enamel.

Model No.	Wheel Size Inches	Net Weight, Pounds	★ NET EACH
24	4x1	7-1/4	\$3.35
25	5x1	9	\$4.35
26	6x1	12	\$5.65
28	8x1-1/4	21	\$8.00

## STANDARD PATTERN GRINDERS

See Below for Countershaft



Fig. No. 1735—No. 1

Will run 2 wheels. Guards of cast iron open face type for use with this machine attach to top plate of column or to bench when column is not used.

Number 1 is intended for light work and is built with split cast iron bearings. No provision is made for attaching tool rests.

Numbers 2, 3, 4 and 5 are built with babbitted bearings and fitted with tool rests of knuckle jointed type. Bearings are dust proof and are fitted with nickel-plated oil cups.

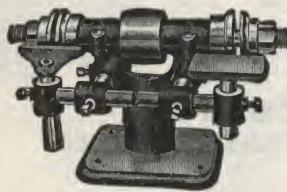


Fig. No. 1736—No. 2

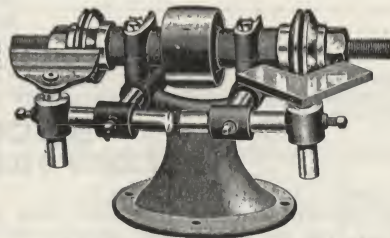


Fig. No. 1738—Nos. 3, 4 and 5



Fig. 1493—Column

### ★ NET PRICES EACH

Number	1	2	3	4	5
Wheel size, in.	6x1	8x1 1/4	10x1 1/2	12x2	14x2
Length of spindle, in.	11	14	18	24	27
Diameter of spindle in bearing, in.	3/4	7/8	1 1/8	1 1/2	1 3/4
Diameter of spindle for emery wheel, in.	3/4	7/8	1	1 1/4	1 1/2
Size of pulley, in.	1 1/2 x 1 1/2	2 1/2 x 3	3 1/2 x 2 1/2	4 1/2 x 3 1/2	4 3/4 x 4
Distance between wheels, in.	6	8	10	14 1/2	16
Height table to center of spindle, in.	5	6 1/4	7 1/2	8	8 1/4
Shipping weight, lbs.	15	25	45	75	90
GRINDERS	★ NET EACH, \$3.40	\$6.75	\$11.50	\$15.85	\$20.25
Columns, 28 1/2-30 inches high.	★ Net, 6.60	7.45	11.00	13.75	17.60
Guards for grinding wheels	★ Net, 1.50	2.25	3.10	4.45	6.00

## COUNTERSHAFTS, SINGLE PULLEY DRIVE

Light counter shafts for use with the grinders listed above, and are also well adapted for use with many other light tools. The hangers are of cast iron and of unusually neat and strong design and are fitted with ringoil bearings. The pulleys are well machined and balanced.

### ★ NET PRICES EACH

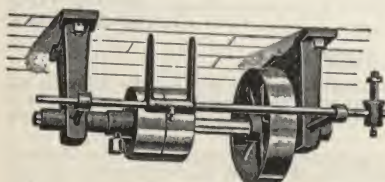


Fig. No. 1740

No.	Size Driver Pulley, In.	Size Tight and Loose Pulley, In.	Diameter of Shaft, In.	Length Shaft, In.	Length Bearings, In.	Drop of Hanger, In.	Shipping Wt., Lbs.	Net Each
1	8x2	4x2	7/8	18	3 1/4	6	40	\$ 6.40
2	9x2 1/4	4x2	7/8	21	3 1/4	6	55	8.25
3	10x3 1/2	5x3	1	24	4	8	60	10.00
4	12x4	5x3	1 1/8	26	4	8	70	13.15
5	13x4	6x4	1 1/8	30	4	8	85	16.90

## FOR GRINDERS, LIGHT MACHINES, ETC.



FLINT PAPER AND EMERY CLOTH

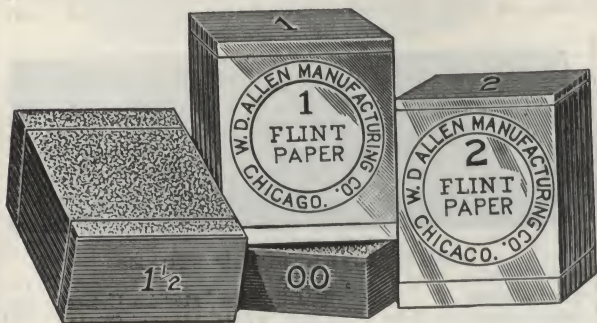


Fig. 2741

Extra Quality Flint (Sand) Paper  
SHEETS, 9x11 IN.

No.	List Quire	List Ream	No.	List Quire	List Ream
000	\$0.45	\$7.50	1 1/2	\$0.60	\$10.50
00	.45	7.50	2	.70	12.15
0	.45	7.50	2 1/2	.80	13.95
1/2	.50	7.95	3	.90	15.90
1	.55	9.00			

DISCOUNTS

1 to 23 Sheets	.....	LIST NET
1 to 19 Quires (24 Sheets to Quire)	...	57% OFF
1 or 2 Reams (480 Sheets to Ream)	...	61% OFF
3 Reams or More	.....	61-20% OFF

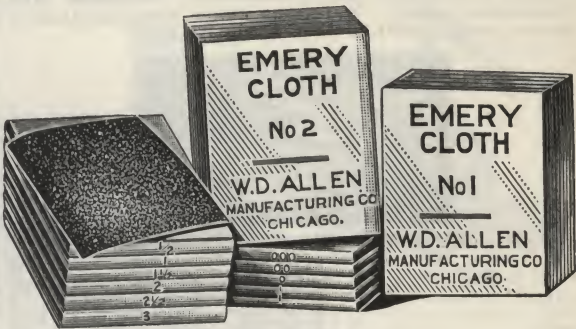


Fig. 4964

Emery Cloth  
SHEETS, 9x11 INCHES

No.	List Quire	List Ream	No.	List Quire	List Ream
Crocus	\$1.65	\$30.00	1	\$1.75	\$32.75
000	\$1.65	\$30.00	1-1/2	\$1.90	\$34.30
00	\$1.65	\$30.00	2	\$2.00	\$36.50
0	\$1.65	\$30.00	2-1/2	\$2.20	\$39.40
1/2	\$1.75	\$31.20	3	\$2.35	\$42.50

DISCOUNTS

1 to 23 Sheets	.....	LIST NET
1 to 19 Quires (24 Sheets to Quire)	...	33% OFF
1 or 2 Reams (480 Sheets to Ream)	...	40% OFF
3 Reams or More	.....	40-20% OFF

ALOXITE CLOTH



Fig. 2740

LIST ROLL OF 50 YARDS

Aloxite Grit No.	Emery Grit No.	1 Inch	1-1/2 Inch	2 Inch
180	000	\$2.90	\$4.05	\$5.15
150	00	\$2.90	\$4.05	\$5.15
120	0	\$2.90	\$4.05	\$5.15
100	1/2	\$2.90	\$4.05	\$5.15
80	1	\$3.00	\$4.20	\$5.40
60	1-1/2	\$3.25	\$4.50	\$5.80

Other grits: 320, 240, 50, 40, 36, 30 and 24, can be furnished, prices on request.

1 to 5 Rolls	.....	22% OFF
6 to 29 Rolls	.....	30% OFF
30 or More Rolls	.....	37% OFF



Fig. 4965

LIST ROLL OF 50 YARDS

Aloxite Grit No.	Emery Grit No.	2-1/2 Inch	3 Inch	9 Inch	18 Inch	28 Inch
180	000	\$5.80	\$6.90	\$20.35	\$40.55	\$58.00
150	00	\$5.80	\$6.90	\$20.35	\$40.55	\$58.00
120	0	\$5.80	\$6.90	\$20.35	\$40.55	\$58.00
100	1/2	\$5.80	\$6.90	\$20.35	\$40.55	\$58.00
80	1	\$6.15	\$7.30	\$21.55	\$42.90	\$61.60
60	1-1/2	\$6.65	\$7.95	\$23.40	\$46.60	\$66.90

Other widths: and other grits, 320, 240, 50, 40, 36, 30 and 24; can be furnished, prices on request.

1 or 2 Rolls	.....	12% OFF
3 to 5 Rolls	.....	17% OFF
6 or More Rolls	.....	25% OFF

ALOXITE COMBINATION FIBRE BACK 'FLAT' DISCS

For portable sanding machines. SPECIFY: MODEL and MAKE SANDER, and SIZE OF HOLE, 1/2 or 7/8 INCH. Prices on request for Depressed Center Discs, 5, 6 and 8 inch diameters can be furnished, prices on request.

LIST 100 DISCS

Grit No.	No. In Carton	7 Inch	9-1/8 Inch
16	10	\$30.95	\$41.25
24	25	\$24.05	\$32.05
36	25	\$23.55	\$31.35
60	25	\$20.90	\$27.90
80	25	\$19.70	\$26.25
120	25	\$19.70	\$26.25

DISCOUNTS

1 to 49 Discs	.....	18% OFF
50 to 299	.....	20% OFF
300 or More	.....	25% OFF



Fig. 4966

TURKISH EMERY



Fig. 3041

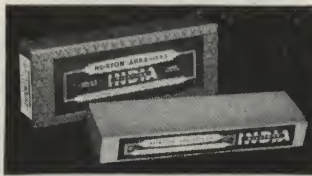
We are now carrying a stock of Turkish Emery in one pound and five pound bags, in seven different grades, as follows:

Grade 60, 70, 80, 100, 120, F, and FF.	
Specify grade wanted.	
In 1 lb. Bags.....	★ NET POUND, \$0.18
In 5 lb. Bags.....	★ NET POUND, \$0.15



# INDIA OILSTONES

**FAST CUTTING! LONG LASTING! COARSE, MEDIUM OR FINE GRITS.** Made from Alundum abrasive (aluminum oxide). Maintains shape and smoothness of edge on tool. Factory-impregnated with oil and ready for use with slight further applications.



## INDIA BENCH STONES

Size in Inches	LIST				Old Nos.
	EACH	Fine	Medium	Coarse	
4x1x1/2	\$0.55	FB24	MB24	CB24	3
6x2x1	\$1.15	FB6	MB6	CB6	29
7x2x1	\$1.25	FB7	MB7	CB7	1-1/2
8x2x1	\$1.50	FB8	MB8	CB8	0

## INDIA COMBINATION STONES

Two stones, one Coarse and one Fine grit, vitrified into one solid stone.

4x1-3/4x5/8	\$0.85	IB134	.....	.....	.....
6x2x1	\$1.25	IB6	.....	.....	29
7x2x1	\$1.50	IB7	.....	.....	1-1/2
8x2x1	\$1.75	IB7	.....	.....	0



## INDIA ROUND EDGE SLIPS

For tools and knives with curved edges.

4-1/2x1-3/4x1/4x1/16	\$0.65	FS24	MS24	CS24	15
4-1/2x1-3/4x3/8x1/8	\$0.65	FS34	MS34	CS34	14
4-1/2x1-3/4x1/2x3/16	\$0.65	FS44	MS44	CS44	13



## INDIA SQUARE FILES

For die and tool work.

4x1/4	\$0.40	FF14	MF14	CF14	6
4x5/16	\$0.45	FF24	MF24	CF24	5-1/2
4x3/8	\$0.45	FF34	MF34	CF34	5
4x1/2	\$0.45	FF44	MF44	CF44	4
6x1	\$0.70	FF76	MF76	CF76	34

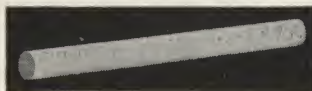


## INDIA TRIANGULAR FILES

4x1/4	\$0.50	FF114	MF114	CF114	9
4x5/16	\$0.55	FF124	MF124	CF124	8-1/2
4x3/8	\$0.55	FF134	MF134	CF134	8
4x1/2	\$0.55	FF144	MF144	CF144	7
6x1	\$0.80	FF176	MF176	CF176	67

## INDIA TAPER TRIANGULAR FILES

4x1/2x1/4	\$0.75	FF544	MF544	CF544	57
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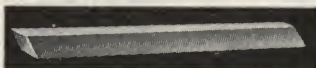


## INDIA ROUND FILES

4x1/4	\$0.60	FF214	MF214	CF214	12
4x5/16	\$0.65	FF224	MF224	CF224	11-1/2
4x3/8	\$0.65	FF234	MF234	CF234	11
4x1/2	\$0.65	FF244	MF244	CF244	10
6x1	\$0.90	FF276	MF276	CF276	72

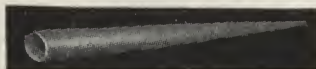
## INDIA TAPER ROUND

4x1/2x1/4	\$0.75	FF644	MF644	CF644	58
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## INDIA DIAMOND FILE

4x9/16x3/16	\$0.90	FT134	MT134	CT134	26
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## INDIA POINT

3x5/16 Base	\$0.90	FF723	MF723	CF723	27
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**DISCOUNT**

1 to 5 ..... LIST NET 6 or More ..... 25% OFF 36 or More ..... 35% OFF



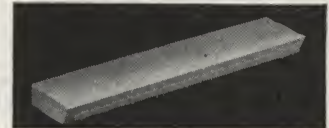
## INDIA SILVERSMITHS' STONES

Size in Inches	LIST				Old Nos.
	EACH	Fine	Medium	Coarse	
4x5/16x3/16x5/16x1/16	\$0.75	FF414	MF414	CF414	45
4x3/8x3/16x1/8x1/16	\$0.75	FF424	MF424	CF424	48
3-1/2x7/16x3/16	\$0.75	FF433	MF433	CF433	50
4x7/16x3/16x1/8	\$0.75	FF434	MF434	CF434	49
4x1/2x1/16	\$0.75	FF444	MF444	CF444	43
4x1/2x3/16x3/16x1/16	\$0.75	FF454	MF454	CF454	47
4x1/2x1/4x5/16x1/8	\$0.75	FF464	MF464	CF464	46
4x1/2x1/4x5/16x1/8	\$0.75	FF474	MF474	CF474	44



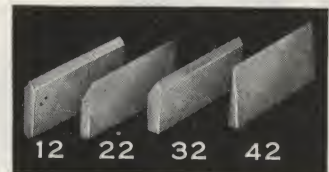
## INDIA KNIFE BLADE

4x1x1/8 Back	\$0.70	FF724	MF724	CF724	28
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## INDIA REAMER STONES

3-1/2x3/4x3/16	\$0.50	FT123	MT123	CT123	23
4-1/2x1x5/16	\$0.55	FT124	MT124	CT124	25
5x1x3/16	\$0.55	FT125	MT125	CT125	56
6x1x1/4	\$0.75	FT126	MT126	CT126	56-1/2



## INDIA CARVING TOOL SLIPS

2-1/4x7/8x3/16	\$0.50	MS12	.....	36
2-1/4x7/8x3/16	\$0.50	MS22	.....	37
2-1/4x7/8x3/16	\$0.50	MS32	.....	38
2-1/4x7/8x3/16	\$0.50	MS42	.....	39



## INDIA ENGRAVERS' PENCIL

Medium and Fine grits mounted in a wood pencil. 7 Inches

\$0.65	IT17	.....	19
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## ARKANSAS BENCH STONES

A natural stone quarried in the Ozark Mountains. Gives the finest edge of any oilstone in existence. For sharpening the finest tools.

Size in Inches ABOUT	HARD		SOFT	
	No.	LIST	No.	LIST
4x2x3/4-1	HB4	\$3.50	SB4	\$1.00
6x2x3/4-1	HB6	\$6.00	SB6	\$2.00
7x2x3/4-1	HB7	\$7.00	SB7	\$2.75
8x2x3/4-1	HB8	\$8.00	SB8	\$3.50

## ARKANSAS ROUND EDGE SLIP

3x1-3/4x1/4x1/16	HS3	\$1.00	SS3	\$0.40
4x1-3/4x3/8x1/8	HS4	\$1.50	SS4	\$0.60
5x1-3/4x3/8x1/8	HS5	\$2.00	SS5	\$1.00



## DIXON'S LUMBER CRAYONS



Fig. 3646

4½ inches long, ½ inch in diameter, hexagon shape, paper covered. 1 dozen in box. For marking steel; iron; concrete; stone; lumber; packing cases; wrapping paper, etc.

Mfrs. No.	Colors	LIST DOZEN	Mfrs. Nos.	Colors	LIST DOZEN
494	Carbon Black	\$1.20	521	Blue	\$1.20
496	Yellow	\$1.20	521-1/2	Soft Blue	\$1.20
497	Terra Cotta	\$1.20	522	Green	\$1.20
520	Red	\$1.20			

365	Black Graphite, very soft, paper cover	\$0.67
365-1/2	Black Graphite, soft, japanned finish	\$0.67

## DISCOUNT

1 to 11 Each	.....	LIST NET
1 to 11 Dozen	.....	20% OFF
1 to 4 Gross	.....	25% OFF
5 Gross or More	.....	30% OFF

## AMERICAN CRAYON AND CHALK

## SOAPSTONE

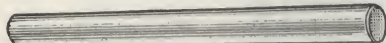
## METAL WORKERS' CRAYON

Fig. 2736—Mfrs. No. 186

Round, 5 by ¼ inch	.....	LIST GROSS, \$3.70
Square, 5 by ¼ by ¼ inch	.....	LIST GROSS, \$2.10
Flat, 5 by ½ by ¼ inch	.....	LIST GROSS, \$2.30
Flat, Wrapped, Pointed, Extra Grade,		
5 by ½ by ¼ inch	.....	LIST GROSS, \$4.50

## DISCOUNT

1 to 143 Each	.....	LIST NET
1 Gross or or More	.....	33½% OFF



## COMMON WHITE CHALK

Fig. 3239	.....	LIST GROSS, \$0.44
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## DISCOUNT

1 to 5 Gross	.....	LIST NET
6 or More Gross	.....	25% OFF



## WHITE RAILROAD CHALK

Fig. 3774—Mfrs. No. 888

Large, substantial sticks. Makes bright, easily legible markings which can be readily erased. 1 Gross in strong lock-cornered box.

LIST GROSS, \$2.60

## DISCOUNT

1 to 5 Gross	.....	25% OFF
6 or More Gross	.....	33½% OFF



## CARPENTERS' CHALK—Half Round

Fig. 3242—Mfrs. 777. ½ Gross in box.

White	.....	LIST GROSS, \$2.30
Red	.....	LIST GROSS, \$2.80
Blue	.....	LIST GROSS, \$2.80

## DISCOUNT

½ to 5 Gross	.....	25% OFF
6 or More Gross	.....	33½% OFF

## NORTON SCREEN DOOR CLOSERS

## GENUINE NORTON DOOR CLOSERS

The finest door closer made. Guaranteed to work perfectly for two years and any defects in workmanship or material will be made good.

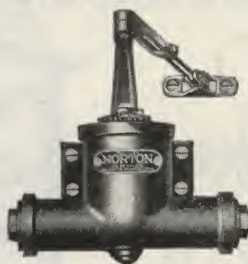


Fig. 4157

With Regular Arms



Fig. 4158

With Holder Arms

A new packing nut absolutely prevents leakage with the use of mineral oil. Drop forged steel detachable back plate or ear that cannot break. All internal working parts and the end plugs are of steel. Special process tempered steel spring has more flexibility and power and practically entirely eliminates spring breakage. We guarantee the power of the Norton Door Closer to be equal to any on the market, size for size. The Rack and Pinion principle with two speed control, positively holds the door under absolute control every inch of the way, and provides a separate adjustment at the latch, slower or quicker, as desired, for noiseless closing or overcoming the many latch and draft conditions. SPECIFY SIZE, HAND OF CLOSER (Right or Left), AND FINISH. (Gold Bronze, Maroon Bronze, Silver Bronze or Dead Black.) Other finishes can be furnished, prices on request. For doors subjected to a strong draft use a size larger closer than suggested.

Size A. For light inside doors.

Size B. For doors 2 feet 6 inches by 7 feet and not over 1½ inches thick.

Size C. For inside doors 3 feet by 7 feet and not over 1½ inches thick.

Size D. For heavy inside or light outside doors 3 feet by 7 feet.

Size E. For outside doors 3 feet by 8 feet.

Size F. For extra heavy outside doors.

## LIST EACH—WITH REGULAR ARMS

Size	A	B	C	D	E	F
Gold Bronze	\$8.65	\$11.00	\$13.35	\$16.00	\$21.35	\$26.65

## LIST EACH—WITH HOLDER ARMS

Automatic friction head holder arm. Holds the door open.

Size	A	B	C	D	E	F
Gold Bronze	\$10.65	\$13.00	\$15.35	\$18.00	\$23.35	\$28.65

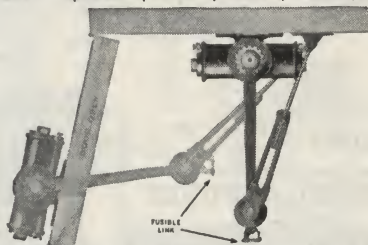


Fig. 4967 Style 5. With Fusible Link Arms

The fusible link arm consists of two clamps and a fusible link assembled in a variation of the closer with the holder arms. The door closes quickly and surely when the temperature is raised to 160 degrees Fahrenheit; the link fuses, and the clamps fly apart so that the holder feature releases and the door closes under pressure of the spring in the closer. Style 5 is Tested and APPROVED by the National Board of Fire Underwriters Laboratories. Style 3 is not approved by the Underwriters.

## List Each—With Fusible Link Arms

Size	C	D	E	F
Style 5, Gold Bronze	\$28.35	\$31.00	\$36.35	\$36.35
Style 3, Gold Bronze	\$17.50	\$20.00	\$25.00	\$30.85

DISCOUNT 30-10% OFF

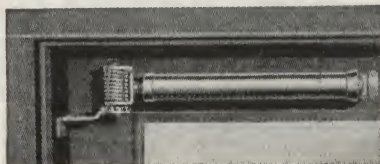


Fig. 4968. Mfrs. 4

Mfrs. 4. Seamless BRASS Cylinder. Heavy steel parts. A spring holds the cup leather washer against the side walls of the piston assuring checking at all times.

LIST EACH \$2.23

Mfrs. 04. Seamless STEEL Cylinder. The spring is concealed in the cylinder.

LIST EACH \$1.61

DISCOUNT 30-10% OFF

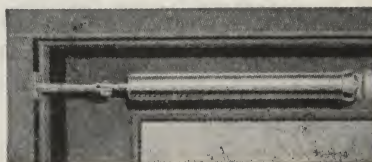


Fig. 4969. Mfrs. 04



# ARC WELDED BENCH LEGS

Made of All-Angle-Steel arc welded construction. Legs are built very strong and are extremely rigid. Spacing recommended for bench legs is 6 feet or 3 legs for each 12 feet of planking. Prices for widths not shown on request.

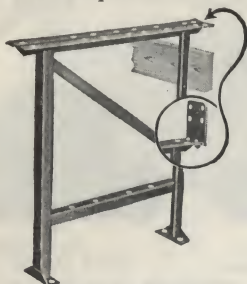


Fig. 3472—Heavy

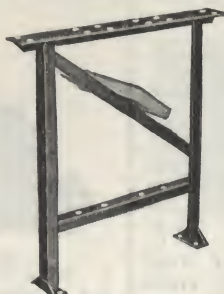


Fig. 3693—Heavy



Fig. 3473—Heavy

**Heavy Type.** For the shop or factory that has heavy work to do, such as pounding, twisting, bending, etc. Specifications—Top made of two angles  $2\frac{1}{2} \times \frac{1}{2}$  inches welded together, forming a tee section, having a width of 4 inches. Type A and D have an overhang of  $3\frac{1}{2}$  inches, while type B has only 3 inches. This Tee section is set into a slot cut in the uprights and welded in, thus the top sets on and into the uprights.

Uprights made of  $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$  inch angle. Cross and brace  $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$  inches. Top pierced for planking, using  $\frac{3}{4}$ -inch bolts, back and brace for stringer, feet for fastening to floor and brace for shelving. Bracket illustrated used for supporting the back board.

Finish—Olive green lacquer.

Prices given do not include the bracket.

FIG. 3472—HEAVY				
Type	Width Inches	Height Inches	Weight Pounds	LIST EACH
1-A	28	30	19½	\$4.00
2-A	28	32¼	20	4.00
3-A	28	35	20½	4.25
1-B	23	30	17	4.00
2-B	23	32¼	18	4.00
3-B	23	35	18½	4.25
1-D	31½	30	20½	4.10
2-D	31½	32¼	21	4.10
3-D	31½	35	21½	4.35

Backboard Bracket ★ Net Each, \$0.60

**HEAVY—DOUBLE ASSEMBLY TYPE**  
Note placement of stringer in center of angle brace, so arranged that workmen can get knees under bench, when working on both sides.

FIG. 3693—HEAVY				
Type	Width Inches	Height Inches	Weight Pounds	LIST EACH
1-E	31½	30	20½	\$4.10
2-E	31½	32¼	21	4.10
3-E	31½	35	21½	4.35

FIG. 3473—HEAVY				
Type	Width Inches	Height Inches	Weight Pounds	LIST EACH
1-F	45	30	25	\$4.75
2-F	45	32¼	26	4.75
3-F	45	35	27	5.00

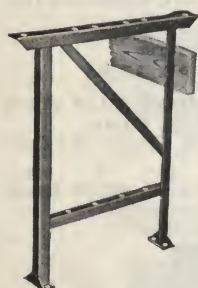


Fig. 3471—Light

**FIG. 3471—LIGHT**  
Recommended for light work assembly benches.

Specifications—Top made of  $2\frac{1}{2} \times \frac{1}{2}$  inches, cross members  $1\frac{1}{2} \times \frac{1}{2}$  inches angle all welded by the Electric Arc. Top pierced for planking, back for stringer, brace for shelving, feet to fasten same to floor.

Type	Width Inches	Height Inches	Weight Pounds	LIST EACH
1-L	23	30	13	\$2.50
2-L	23	32¼	13	2.50
3-L	23	35	13½	2.75
1-M	28	30	14	2.75
2-M	28	32¼	14	2.75
3-M	28	35	14½	2.85

**FIG. 3694—BANTAM**  
Recommended for light assembly benches.

Specifications—made of  $1\frac{1}{2} \times 1\frac{1}{2}$  inch angle with mortised corners, and welded in cross brace of  $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$  inch angle. Top pierced for planking, back for stringer, brace for shelving, feet turned under and pierced for fastening to floor.

Type	Width Inches	Height Inches	Weight Pounds	LIST EACH
1-O	23	30	10	\$1.50
2-O	23	32¼	10	1.50
3-O	23	35	10½	1.50
1-P	28	30	12	1.65
2-P	28	32¼	12	1.65
3-P	28	35	12½	1.65



Fig. 3694—Bantam

DISCOUNT		
{ 1 to 99	.....	15% OFF
{ 100 or More	.....	35% OFF

## ALL STEEL BENCHES



Fig. 3697

Heavy bench legs. Top is flanged front and back for stiffness and leaves no sharp edges,  $\frac{1}{8}$  inch steel and is flat and smooth. Back and end plates prevent piece parts from sliding off bench. Back plate and shelf is flanged for rigidity and strength. Olive green finish. Shipped knocked down. Steel bench drawer is extra, see page 375B. Drawer is attached by special clamps, \$1.50 Net Extra.

Width of Top, Inches	Height of Leg, Inches	Length of Bench, 5 Feet	LIST EACH, 6 Feet
24	32¼	\$30.00	\$33.75
29	32¼	\$32.75	\$37.60

DISCOUNT ..... 35% OFF

## BAR STOCK RACKS



Fig. 3698

### CAPACITY

Will hold all the steel that can be piled on—10 to 15 ton.

### NOTE

For racking 12-foot bars use two posts, for 18-foot bars use three posts and for 24-foot bars use four posts. 1 by 6-inch boards can be placed on lower arms for storage of short pieces of stock.

A stable, rigid rack for convenient storage of bar stock, tubing, pipe, etc. Accommodates a large variety of sizes without undue mixing. Base is a heavy grey iron casting. Column is a heavy steel channel 65 inches long with holes placed every three inches. Seven arms  $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ -inch angle steel, all set at 10 degree angle and rolled up at ends to prevent stock from rolling off. Shipped knocked down.

Arms	Width	Weight	★ NET EACH
Double	28 inch	110	\$14.25
Single	16½	73	11.00

## STEEL TOOL CHESTS



Fig. 3699

Made of  $\frac{1}{8}$  inch sheet steel entirely reinforced with  $2\frac{1}{2}$  inch oak cleats. Heavy steel skids make chests slide easily over rough surfaces and prevent wear. Lid held down at front covers with  $\frac{1}{2}$  inch bolts which screw into malleable iron corners having a  $\frac{1}{4}$  inch thread surface. Six heavy handles. Chained lock and keys. Enameled in olive green, cleats in natural color. One sliding drawer.

Size	Depth, Length, Inches	Width, Shpg. Weight	★ NET EACH
1	11 x 12 x 24	51 lbs.	\$20.80
2	14 x 15 x 30	84 lbs.	28.40
3	16 x 17 x 36	127 lbs.	31.20
4	19 x 20 x 42	159 lbs.	36.40



STEEL SHOP CHAIRS AND STOOLS

Legs and braces are steel angles. Wood seats are hardwood with smooth rounded edges. Steel seats are heavy and have perforations. Curved wood back fastened with spring steel.



Chair With Round Steel Seat			Stool With Round Wood Seat			Chair With Round Wood Seat			Stools and Chairs Revolving and Adjustable			Chair With Saddle Wood Seat		
Seat Height Inches	13 1/2 Inch Seat		Seat Height Inches	13 1/2 Inch Seat	15 Inch Seat	Seat Height Inches	13 1/2 Inch Seat	15 Inch Seat	Seat Height Inches	Seat Size Inches	★ NET EACH	Seat Height Inches	15x15 Inch Saddle	
Non-Adjustable			Non-Adjustable			Non-Adjustable			433 Stool			Non-Adjustable		
	404			N1	N2		N1B	N2B					N3B	
18	\$2.92		18	\$1.98	\$2.31	18	\$3.08	\$3.41	17 to 22	13-1/2	\$5.27	18	\$3.93	
20	\$3.00		20	\$2.06	\$2.39	20	\$3.16	\$3.49	22 to 27	13-1/2	\$5.51	20	\$4.02	
22	\$3.08		22	\$2.15	\$2.48	22	\$3.25	\$3.58	27 to 33	13-1/2	\$5.75	22	\$4.10	
24	\$3.16		24	\$2.23	\$2.56	24	\$3.33	\$3.66	17 to 22	15	\$5.04	24	\$4.18	
26	\$3.33		26	\$2.30	\$2.72	26	\$3.49	\$3.82	22 to 27	15	\$5.89	26	\$4.35	
28	\$3.47		28	\$2.53	\$2.86	28	\$3.63	\$3.96	27 to 33	15	\$6.13	28	\$4.48	
30	\$3.55		30	\$2.61	\$2.94	30	\$3.71	\$4.04	426 Chair			30	\$4.57	
32	\$3.63		32	\$2.70	\$3.03	32	\$3.80	\$4.13	With Wood Back Rest			32	\$4.65	
402 Stool With Steel Seat			Adjustable			Adjustable			17 to 22	13-1/2	\$6.45	Adjustable		
				A1	A2		A1B	A2B	22 to 27	13-1/2	\$6.69		A3B	
24	\$1.82	17 to 22		\$2.42	\$2.75	17 to 22	\$3.52	\$3.85	27 to 33	13-1/2	\$6.94	17 to 22	\$4.37	
18	\$2.06	21 to 26		\$2.59	\$2.92	21 to 26	\$3.69	\$4.02	427 Chair			21 to 26	\$4.53	
28	\$2.37	25 to 30		\$2.81	\$3.14	25 to 30	\$3.91	\$4.24	With Wood Back Rest			25 to 30	\$4.75	
30	\$2.45	28 to 33		\$3.03	\$3.36	28 to 33	\$4.13	\$4.46	17 to 22	15	\$6.83	28 to 33	\$4.97	
									22 to 27	15	\$7.07			
									27 to 33	15	\$7.31			

STEEL TOOL STANDS AND DESKS

Olive green lacquer finish. Shipped knocked down. Easily assembled with rivets supplied or 1/4x1/2 stove bolts and lock washers may be used. Bench drawers as illustrated are extra. Trays made of No. 16 gauge steel with 2 inch flange. Legs are 1 1/2x1 1/2x3/4 inch angle steel and are punched for casters.



TOOL STAND Fig. No. 2954				TOOL TENDER Fig. No. 3371				SHOP OR CHECKERS' DESK Fig. No. 3372				DIE AND TOOL TRUCK Fig. No. 3721			
May be assembled in reverse of illustration and used as slides for heavy dies and punches.				Top pan 3 inches deep. Strong flanged cover. Heavy hinges and hasp for locking tool in top compartment.				42 ins. high in front, sloping up at back to 47 inches in rear. Casters make desk two inches higher. Paper clip \$1.00 net extra.				35 inches high. Casters 5 inches in diameter, steel forks, rubber wheels, roller bearing, 600 pound capacity.			
★ NET EACH				★ NET EACH				★ NET EACH				★ NET EACH			
No.	Width Length Ht. Ins.	Without Casters Net Ea.	With 4 Casters Net Ea.	No.	Width Length Ht. Ins.	Without Casters Net Ea.	With 4 Casters Net Ea.	No.	Width Depth Ins.	Without Casters Net Ea.	With 4 Casters Net Ea.	No.	Width Length Ht. Ins.	Swivel Casters	2 Ea. Casters Stationary; Swivel
600	18x24x32	\$5.43	\$6.68					900	30x24	\$12.30	\$13.30	620	18x24x35	\$25.20	\$22.80
601	22x26x32	\$5.87	\$7.12	800	18x24x33	\$10.50	\$11.50	901	36x24	\$13.50	\$14.50	621	22x26x35	\$25.80	\$23.40
602	24x30x32	\$6.95	\$7.94	801	22x26x33	\$11.50	\$12.50					622	24x30x35	\$27.00	\$25.20
603	24x36x32	\$7.30	\$8.55									623	24x36x35	\$28.80	\$26.40

For steel tool stand, tool tender, shop or checkers' desk, die or tool truck, steel work bench and also for wood bench tops, etc. Drawers are made of 16 and 18 gauge steel, all spot welded. With padlock attachment. Impossible to gain access without destroying drawer. No rough edges. Slide easily on two channels having wide flat surfaces. Olive green finish.



No.	Width Depth, Ins.	Weight Pounds	★ NET EACH
700	12x20x4	11	\$3.00
701	12x20x5	12	\$3.30
702	14x22x4	15	\$3.30
703	14x22x5	16	\$3.60
704	14x22x6	17	\$4.20
705	18x24x5	20	\$4.50
706	18x24x6	21	\$4.80
Tray, 1 by 8 inches...★ Net Extra,			\$1.20
Cabinet Lock .....★ Net Extra,			\$1.00



# STEEL LOCKERS AND CABINETS

Sturdy, neat appearing storage at a moderate cost. Built with heavy angle steel frames. 5 inch closed base. Shelves are easily adjustable on 1½ inch centers by the use of clips, no tools being necessary. Dark green double finish of lacquer hand sprayed over a hard baked enamel base which gives the cabinets and racks a rich, soft appearance.



Fig. 4970  
Single Tier

## STEEL LOCKERS

Workmen appreciate lockers which properly protect their good clothing and valuables; it helps give them a feeling that they 'belong' with the organization. Your maintenance department will appreciate the rigid construction of this locker which has the strongest frame and door best suited to withstand blows from passing trucks and other moving equipment that would ruin the average lockers. Many other sizes available, prices on request.

Yale Master keyed locks with 2 keys.

★ Net Lock Extra, \$0.65



Fig. 4971  
Double Tier



## STORAGE RACKS

Fig. 4087

Rigid substantial construction. Lower priced than steel shelving. Sturdy enough to carry heavy loads and present a clean-cut business-like appearance. One or a dozen racks can be joined together in rows by fastening with four bolts. As storage needs grow, additional racks may be added. 4 adjustable shelves. K.D.—Knocked Down.

Tier	Width Inches	Depth Inches	Height Inches	Overall Height	K. D. ★NET	Set Up ★NET
Single	12	12	60	66	\$5.87	\$6.45
Single	12	15	60	66	\$6.28	\$6.97
Single	12	12	72	78	\$6.83	\$7.51
Single	12	15	72	78	\$7.31	\$8.04
Single	15	15	72	78	\$8.05	\$8.85
Single	15	18	72	78	\$8.53	\$9.38
Single	18	24	72	78	\$10.30	\$11.30
Double	12	12	36	78	\$3.87	\$4.26
Double	12	15	36	78	\$4.09	\$4.50
Double	12	15	42	90	\$4.68	\$5.15
Five (Box)	12	12	12	66	\$8.70	\$9.57
Five (Box)	12	15	12	66	\$9.05	\$9.96
Six (Box)	12	12	12	78	\$11.10	\$12.20
Six (Box)	12	15	12	78	\$11.50	\$12.68

Wid. Ins.	Depth Ins.	Ht. Ins.	No. Shelves	★ NET EACH K.D. SET UP
36	18	78	4	\$16.40 \$17.40
36	18	90	5	\$19.55 \$21.00
36	12	78	4	\$14.40 \$15.15
36	12	90	5	\$17.00 \$18.37



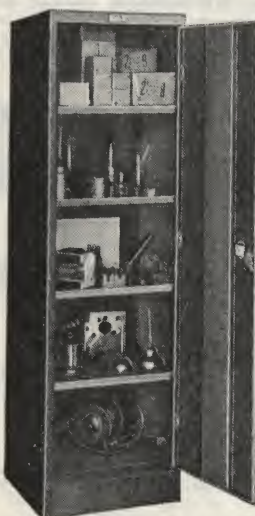
## STORAGE CABINET

Fig. 4084

Fitted with double doors. Four adjustable shelves. With lock.

Width Inches	Dpth. Inches	Hght. Inches	★ NET EACH	Extra Shelf
36	18	78	\$26.80	\$1.60
36	12	78	\$24.20	\$1.55
36	18	66	\$24.20	\$1.60

\* Can also be shipped knocked down, deduct \$2.00 ★ NET EACH.



## STORAGE CABINET

Fig. 4086

Fitted with single door. With adjustable shelves. With lock. Fits handily in all odd corners. Compact size makes it adaptable for many needs in the factory, shop or office 18 inches wide. 18 inches deep. 66 inches high overall.

With 4 Shelves	★ NET, \$18.75
With 1 Shelf	★ NET, \$17.95
Extra Shelves	★ NET, \$12.25



## DRILL, REAMER AND TOOL CABINET

Fig. 4089

Makes possible systematic handling of drills, reamers and expensive tools. Eliminates loss of equipment and loss of time because tools are in plain sight and indexed by the use of label holders. Shelves and dividers are adjustable. Set up, ready for use.

\* Can also be shipped knocked down, deduct \$2.00 Net Each.

Doors	Width Inches	Depth Inches	Height Inches	★ NET EACH
With	36	18	78	\$36.35
Without	36	18	78	\$29.85
With	36	12	78	\$34.70
Without	36	12	78	\$28.30



# SEMI-FINISHED HEXAGON BRASS NUTS

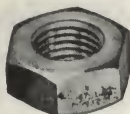
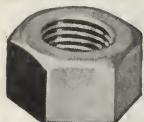


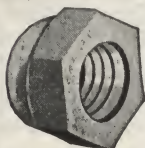
Fig. 3445R. Regular

Fig. 3445J. Jam

N. C. Thread (U. S. Standard) 100 in a box. Milled from solid bars and are full size.

LIST 100					
Diameter of Bolt	Number of Threads	Width Across Flats	Thickness Regular Nut	Thickness Jam Nut	List 100
3/16	24	3/8	3/16	5/32	\$ 1.40
1/4	20	1/2	1/4	3/8	2.40
5/16	18	11/16	5/16	7/16	3.20
3/8	16	13/16	3/8	1/2	5.20
7/16	14	1 1/4	7/16	9/16	7.20
1/2	13	1 1/2	1/2	5/8	9.60
5/8	12	1 5/8	5/8	3/4	15.00
3/4	11	1 3/4	3/4	7/8	17.00
7/8	10	1 7/8	7/8	1	27.00
1	9	2	1	1 1/8	45.00
1 1/8	8	2 1/8	1 1/8	1 1/4	68.00
1 1/4	7	2 1/4	1 1/4	1 3/8	120.00
1 1/2	6	2 1/2	1 1/2	1 1/2	145.00
1 3/4	5	2 3/4	1 3/4	1 3/4	180.00
2	4	3	2	2	230.00

DISCOUNT	
1 to 99	35% OFF
100 to 500	45% OFF
600 or More	50% OFF



HEXAGON BRASS CAP NUTS

Fig. No. 3447

Milled from solid rod. Smooth finish.

## LIST PRICE PER 100

Size of Thread	Diameter of Hexagon Base	Height	List Per 100
6-32, 8-32	5/16	9/32	\$ 0.80
10-24, 10-32, 12-24	3/8	11/32	1.00
14-20, 14-24, 1/4-20	1/2	3/4	1.25
3/4-20, 16-18, 18-18	1/2	13/32	1.60
5/16-18, 20-18	5/16	7/16	2.00
24-16, 3/8-16, 3/8-24	3/8	1/2	2.80
7/16-14, 1/2-12, 1/2-24	7/16	9/16	4.50
5/8-11	5/8	3/4	15.00

DISCOUNT	
1 to 99	LIST PLUS 10%
100 or More	LIST PLUS 5%

# HEXAGON HEAD BRASS CAP SCREWS

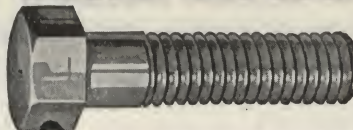


Fig. 3444

N. C. Thread (U. S. Standard). 100 in a box. Milled from solid rod. Cut threads.

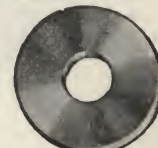
LIST PRICES PER 100						
Diam. of Screw.	1/4	5/16	3/8	1/2	5/8	3/4
Threads per In.	20	18	16	14	13	11
Diam. of Head.	1/4	5/16	3/8	1/2	5/8	3/4
Height of Head.	3/16	1/8	5/32	1/4	3/8	1/2
Length						
1 1/2	\$4.70	\$ 6.70				
5/8	4.90	6.90	\$ 8.80			
3/4	5.10	7.10	9.10	\$12.10	\$17.90	
7/8	5.30	7.30	9.40			
1	5.50	7.60	9.80	13.10	19.00	\$26.10
1 1/4	6.00	8.20	10.60	14.20	20.20	28.50
1 1/2	6.50	8.90	11.50	15.40	21.50	31.00
1 3/4	7.10	9.70	12.50	16.70	22.90	33.60
2	7.80	10.80	13.60	18.10	24.40	36.40
2 1/4	8.70	11.80	14.80	19.60	26.00	39.40
2 1/2	9.80	12.90	16.10	21.20	27.70	42.70
2 3/4	11.00	14.20	17.50	23.00	29.60	46.30
3	12.00	15.40	19.00	25.00	31.70	50.30

DISCOUNT	
1 to 99	40% OFF
100 to 900	50% OFF
1000 or More	50-10% OFF

# BRASS WASHERS

Fig. No. 3626

Clean finished and free from burrs or sharp edges. Packed in one pound packages unless otherwise specified. Other standard sizes can be furnished promptly.



## LIST PER POUND

Screw Size	Bolt Size	O. S. Diam.	I. S. Diam.	Thickness	Approximate No. in Lb.	List Pound
No. 4		5/16	.119	.025	2560	\$1.50
No. 6	1/8	3/8	.147	.032	1135	1.25
No. 8	1/4	1/2	.172	.032	1190	1.00
No. 10	3/8	5/8	.200	.036	810	.90
No. 10	1/2	3/4	.200	.040	500	.80
No. 14	1/2	5/8	.260	.040	425	.80
No. 14	3/4	1 1/8	.260	.051	208	.75
No. 20	3/4	7/8	.337	.064	103	.75
No. 24	1 1/8	1 1/4	.391	.081	61.5	.75
No. 34	1 1/2	1 3/4	.491	.091	37.5	.70
	1 3/4	2	.591	.102	23.2	.70
	2	2 1/8	.691	.114	13.0	.70
	2 1/8	2 1/4	.791	.128	7.7	.70
	2 1/4	2 1/2	.891	.144	5.7	.70
1 to 5 Lbs.						20%
6 Lbs. or More						30%

# FILLISTER HEAD STEEL CAP SCREWS

N.C., National Coarse Thread Only (U. S. Std.)

1/2 x 4 in. and smaller, 100 in pkg. Larger and longer than 1/2 x 4 in., 50 in pkg.

LIST PRICES PER 100. New List adopted February 1st, 1924.

Diam. of Head, In.	3/8	1/2	5/8	3/4	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5
Length of Head, In.	1/4	5/16	3/8	1/2	1 1/2	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4
Diam. of Screw, In.	1/4	5/16	3/8	1/2	1 1/2	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4
Length under Head to Extreme Point	\$2.70	\$3.00	\$3.75	\$4.90	\$6.10	\$7.35	\$8.60	\$9.85	\$11.10	\$12.35	\$13.60	\$14.85	\$16.10	\$17.35	\$18.60	\$19.85	\$21.10	\$22.35	\$23.60	\$24.85
1	3.05	3.35	4.15	5.30	6.50	7.75	9.00	10.25	11.50	12.75	14.00	15.25	16.50	17.75	19.00	20.25	21.50	22.75	24.00	25.25
1 1/4	3.35	3.55	4.45	5.65	6.85	8.05	9.25	10.45	11.65	12.85	14.05	15.25	16.45	17.65	18.85	20.05	21.25	22.45	23.65	24.85
1 1/2	3.65	3.80	4.80	6.05	7.35	8.60	9.85	11.10	12.35	13.60	14.85	16.10	17.35	18.60	19.85	21.10	22.35	23.60	24.85	26.10
1 3/4	3.80	4.10	5.20	6.50	7.80	9.10	10.40	11.70	13.00	14.30	15.60	16.90	18.20	19.50	20.80	22.10	23.40	24.70	26.00	27.30
2	4.00	4.35	5.60	6.90	8.30	9.60	10.90	12.20	13.50	14.80	16.10	17.40	18.70	20.00	21.30	22.60	23.90	25.20	26.50	27.80
2 1/4	4.15	4.65	6.00	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	19.50	21.00	22.50	24.00	25.50	27.00	28.50	30.00	31.50
2 1/2	4.35	4.95	6.40	8.05	9.75	11.50	13.25	15.00	16.75	18.50	20.25	22.00	23.75	25.50	27.25	29.00	30.75	32.50	34.25	36.00
2 3/4	4.55	5.25	6.80	8.60	10.50	12.40	14.30	16.25	18.15	20.05	21.95	23.85	25.75	27.65	29.55	31.45	33.35	35.25	37.15	39.05
3	4.70	5.55	7.20	9.15	11.20	13.30	15.40	17.50	19.60	21.70	23.80	25.90	28.00	30.10	32.20	34.30	36.40	38.50	40.60	42.70
3 1/4		5.85	7.60	9.75	12.05	14.35	16.65	18.95	21.25	23.55	25.85	28.15	30.45	32.75	35.05	37.35	39.65	41.95	44.25	46.55
3 1/2			8.00	10.35	12.80	15.25	17.70	20.15	22.60	25.05	27.50	29.95	32.40	34.85	37.30	39.75	42.20	44.65	47.10	49.55
3 3/4				10.95	13.60	16.35	19.10	21.85	24.60	27.35	30.10	32.85	35.60	38.35	41.10	43.85	46.60	49.35	52.10	54.85
4					14.40	17.85	21.30	24.75	28.20	31.65	35.10	38.55	42.00	45.45	48.90	52.35	55.80	59.25	62.70	66.15
4 1/4						18.60	22.55	26.50	30.45	34.40	38.35	42.30	46.25	50.20	54.15	58.10	62.05	66.00	70.00	74.00
4 1/2							19.75	24.00	28.25	32.50	36.75	41.00	45.25	49.50	53.75	58.00	62.25	66.50	70.75	75.00
4 3/4								27.80	32.55	37.30	42.05	46.80	51.55	56.30	61.05	65.80	70.55	75.30	80.05	84.80
5									46.50	52.25	58.00	63.75	69.50	75.25	81.00	86.75	92.50	98.25	104.00	109.75
Threads to Inch	20	18	16	14	13	12	11	10	9	8										

Prices of screws not listed will be furnished on application.



CUT THREADS

Fig. No. 2621

## Discount

Fillister Head Cap Screws	Full Packages	Broken Packages
	50% OFF	35% OFF



THE NEW ALLEN HOLLOW HEAD SAFETY SET SCREWS

Now Made of Chrome Mo-lyb-den-um. 50% Stronger. 25% Harder



Fig. No. 2207 size, simultaneously forming the socket. This process

Cold drawn sockets, made by a patented process which increases the strength of the metal over 30%.

The cold steel of the "blanks" machined from solid bar stock, is compressed by tons of pressure, around a hexagon punch, drawn through a die to the finished

leaves a clean socket—no chips are left in the bottom. The strength of the sockets is reinforced by special and scientific heat treating. Allen screws have hexagon sockets because this form (with a slight taper) insures a tight fit for the wrench.

American Standard Coarse (U.S.Std.) Threads are regularly furnished. Other threads such as American Standard Fine (S.A.E.) and Whitworth can be made.

Cup point screws are standard. Also furnished in round, cone, flat, dog and half dog points.

Sizes not listed are special, prices on application.

LIST 100 SCREWS. (MARCH 15, 1932) ONE WRENCH WITH EACH 25 SCREWS

Length Overall, Inches	DIAMETER OF SCREWS, INCHES									
	No. 10	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
3/16	\$ 4.70	\$ 4.75	.....	.....	.....	.....	.....	.....	.....	.....
1/4	4.75	4.80	\$ 4.85	\$ 4.90	.....	.....	.....	.....	.....	.....
5/16	4.80	4.85	4.90	4.95	\$ 5.80	.....	.....	.....	.....	.....
3/8	4.85	4.90	4.95	5.00	5.90	\$ 6.80	.....	.....	.....	.....
7/16	4.90	4.95	5.00	5.23	6.00	6.90	\$ 9.70	.....	.....	.....
1/2	4.95	5.00	5.20	5.45	6.25	7.00	9.80	\$11.70	.....	.....
9/16	5.00	5.18	5.40	5.68	6.50	7.30	9.90	11.80	.....	.....
5/8	5.15	5.35	5.60	5.90	6.75	7.60	10.00	11.90	.....	.....
3/4	5.45	5.70	6.00	6.35	7.25	8.20	10.70	12.00	\$14.90	\$19.80
7/8	5.75	6.05	6.40	6.80	7.75	8.80	11.40	12.90	15.00	19.90
1	6.05	6.40	6.80	7.25	8.25	9.40	12.10	13.80	16.10	20.00
1 1/4	6.65	7.10	7.60	8.15	9.25	10.60	13.50	15.60	18.30	22.80
1 1/2	.....	7.80	8.40	9.05	10.25	11.80	14.90	17.40	20.50	25.60
1 3/4	.....	8.50	9.20	9.95	11.25	13.00	16.30	19.20	22.70	28.40
2	.....	9.20	10.00	10.85	12.25	14.20	17.70	21.00	24.90	31.20
2 1/4	.....	.....	.....	12.65	14.25	15.40	19.10	22.80	27.10	34.00
2 1/2	.....	.....	.....	14.45	16.25	16.60	20.50	24.60	29.30	36.80
2 3/4	.....	.....	.....	.....	.....	17.80	21.90	26.40	31.50	39.60
3	.....	.....	.....	.....	.....	19.00	23.30	28.20	33.70	42.40
ADD FOR EACH 1/4 INCH LENGTH NOT LISTED										
...	1.20	1.40	1.60	1.80	2.00	2.40	2.80	3.60	4.40	5.60
...	24	N. C., (U. S. STD.) 20	18	AMERICAN 16	STANDARD 14	COARSE 13	THREADS TO THE INCH 11	10	9	8
...	3/32	1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	9/16
...	.03	.03	.04	EXTRA WRENCHES, EACH .05	.06	.07	.10	.15	.25	.35
DISCOUNT	Broken Packages ..... 30% OFF									
	Full Packages ..... 40% OFF									
	Lots of 1000 or More ..... 45% OFF									

ALLEN TOOL ROOM  
PIPE PLUGS



Fig. 4972

An accurate plug to meet exacting requirements. Made from special analysis alloy steel and milled from the bar, cold-worked and heat treated. The hexagon sockets are accurate, uniform, and perfectly formed all the way down, so the wrench always bottoms the plug. Each plug is heat-treated to resist surface wear. Can also be furnished in Duralumin or Bronze, prices on request.

Briggs Standard Pipe Thread	LIST 100	Length of Plug	Size of Hex. to Each Opening	Threads to Each Inch	Nominal Diam. Large End	No. to Box	Extra Wrench EACH
1/8	\$5.00	3/8	3/16	27	.405	100	\$0.05
1/4	\$7.00	1/2	1/4	18	.540	100	\$0.07
3/8	\$10.00	9/16	5/16	18	.675	100	\$0.10
1/2	\$12.00	9/16	3/8	14	.840	100	\$0.15
3/4	\$20.00	5/8	9/16	14	1.050	50	\$0.35
1	\$30.00	3/4	5/8	11-1/2	1.315	25	\$0.45

DISCOUNTS

Broken Packages	.....	30% OFF
Full Packages	.....	40% OFF
Lots of 1,000 or More	.....	45% OFF

ALLEN TAP EXTENSIONS

Makes a long shank tap out of a regular tap with one or both pieces, making 10 inches in combination. The SQUARE OPENINGS are cold drawn. Set of 2 pieces in wooden box with slide cover.

Tap Size Inch	Square Size Inch	Hole Size Inch	★NET SET (2)
1/4	.191	.192	\$2.00
5/16	.238	.240	\$2.25
3/8	.206	.208	\$2.25
3/8	.286	.288	\$2.50
7/16	.242	.244	\$2.25
1/2	.275	.277	\$2.50
5/8	.360	.362	\$3.00
3/4	.442	.444	\$3.50
7/8	.523	.525	\$4.00
1	.600	.603	\$5.00



Fig. 4973

ALLEN T HANDLE  
HEX WRENCHES



Fig. 4974

Light weight, extremely durable. The smooth handle is shaped to the hand. Heat treated steel hex blade is welded to the handle.

Hex. Size Inch	SET Screw Diam.	CAP Screw Diam.	Hex. Length Inch	★NET EACH
1/8	1/4	8	4	\$1.00
5/32	5/16	10-12	4	\$1.10
3/16	3/8	1/4	5	\$1.25
7/32	7/16	5/16	5	\$1.35
1/4	1/2	.....	6	\$1.50
5/16	5/8	3/8-7/16	6	\$1.60
3/8	3/4	1/2	7	\$1.70
1/2	7/8	5/8	7	\$1.75



## THE NEW ALLEN CHROME MO-LYB-DEN-UM SOCKET HEAD CAP SCREWS



Fig. No. 2938

Recommended for fine work, where good appearance as well as strength are required. After a little hard use the screwdriver slot of the ordinary cap screw becomes rounded off or spread so the screw can no longer be set up tight, and must be replaced. Even in the slight use incidental to setting up new machinery, the slot becomes battered and unsightly, making it necessary to put in new screws before the machines are sent out.

The Allen Cap Screws eliminate troubles due to slotted heads or to rounded corners of external hexagon head screws. They can be set up fully as hard as the ordinary cap screws and are much more convenient in close corners where there is not room to apply an "S" wrench.

Allen screws are all threaded accurately to standard gauges and are perfect in lead. The heads are turned true with the body of the screw.

CHROME-MOLYBDENUM STEEL is standard. All Allen Screws can be furnished (prices on request) in Brass, Hardware Bronze, Everdur, Duralumin, Monel Metal, Nickel Steel and Stainless Steel. SPECIFY: Quantity, diameter, length, and Material.

Note: Screws 4 in. and over are threaded  $\frac{1}{2}$  the length; smaller than in.  $\frac{2}{3}$  the way.

### LIST 100 SCREWS. ONE WRENCH WITH 25 SCREWS

Length Under Head, Inches	No.	DIAMETER OF SCREWS									
		$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	
$\frac{1}{4}$	\$4.90	\$ 5.25	\$ 6.25	.....	.....	.....	.....	.....	.....	.....	
$\frac{1}{2}$	5.10	5.50	6.50	\$ 7.40	\$ 8.90	\$10.20	.....	.....	.....	.....	
$\frac{3}{8}$	5.30	5.75	6.75	7.70	9.20	10.60	.....	.....	.....	.....	
$\frac{1}{2}$	5.50	6.00	7.00	8.00	9.50	11.00	.....	.....	.....	.....	
1	6.25	6.75	7.75	9.00	10.50	12.25	\$18.00	.....	.....	.....	
$1\frac{1}{4}$	7.00	7.50	8.50	10.00	11.50	13.50	19.75	\$20.75	.....	.....	
$1\frac{1}{2}$	7.75	8.25	9.25	11.00	12.50	14.75	21.50	23.00	.....	.....	
$1\frac{3}{4}$	8.50	9.00	10.00	12.00	13.50	16.00	23.25	25.25	\$40.00	.....	
2	9.25	9.75	10.75	13.00	14.50	17.25	25.00	27.50	42.75	\$ 45.50	
$2\frac{1}{4}$	.....	10.50	11.50	14.00	15.50	18.50	26.75	29.75	45.50	49.00	
$2\frac{1}{2}$	.....	11.25	12.25	15.00	16.50	19.75	28.50	32.00	48.25	52.50	
$2\frac{3}{4}$	.....	12.00	13.00	16.00	17.50	21.00	30.25	34.25	51.00	56.00	
3	.....	12.75	13.75	17.00	18.50	22.25	32.00	36.50	53.75	59.50	
$3\frac{1}{4}$	.....	.....	15.25	18.00	19.50	23.50	33.75	38.75	56.50	63.00	
$3\frac{1}{2}$	.....	.....	16.75	19.00	20.50	24.75	35.50	41.00	59.25	66.50	
$3\frac{3}{4}$	.....	.....	.....	21.00	22.50	26.00	37.25	43.25	62.00	70.00	
4	.....	.....	.....	23.00	24.50	27.25	39.00	45.50	64.75	73.50	
$4\frac{1}{4}$	.....	.....	.....	25.00	.....	28.50	40.75	47.75	67.50	77.00	
$4\frac{1}{2}$	.....	.....	.....	27.00	.....	29.75	42.50	50.00	70.25	80.50	
$4\frac{3}{4}$	.....	.....	.....	29.00	.....	31.00	44.25	52.25	73.00	84.00	
5	.....	.....	.....	31.00	.....	32.25	46.00	54.50	75.75	87.50	
$5\frac{1}{4}$	.....	.....	.....	.....	.....	33.50	47.75	56.75	78.50	91.00	
$5\frac{1}{2}$	.....	.....	.....	.....	.....	34.75	49.50	59.00	81.25	94.50	
$5\frac{3}{4}$	.....	.....	.....	.....	.....	36.00	51.25	61.25	84.00	98.00	
6	.....	.....	.....	.....	.....	37.25	53.00	63.50	86.75	101.50	
ADD FOR EACH $\frac{1}{4}$ INCH LENGTHS NOT LISTED											
.....	1.50	1.50	1.50	2.00	2.00	2.50	3.50	4.50	5.50	7.00	
N. C., (U. S. STD.) AMERICAN STANDARD COARSE THREADS TO THE INCH											
.....	24	20	18	16	14	13	11	10	9	8	
MAXIMUM HEAD DIAMETER, INCHES											
.....	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	
MAXIMUM HEAD HEIGHT, INCHES											
.....	.190	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	1	
SIZE OF HEXAGON HOLE, INCHES											
.....	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	
EXTRA WRENCHES, EACH											
.....	.04	.05	.06	.10	.10	.15	.25	.35	.35	.45	

DISCOUNT	Broken Packages.....	25% OFF
	Full Packages.....	35% OFF
	Lots of 1000 or More.....	40% OFF

## Allen Socket Head Shoulder Screws [Stripper Bolts]

Made with care under the cold drawn precision process. The heat treating process insures dependable strength and the greatest degree of resistance to wear in continuous operation. Each screw is individually inspected, tested and guaranteed perfect.

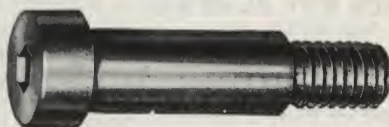
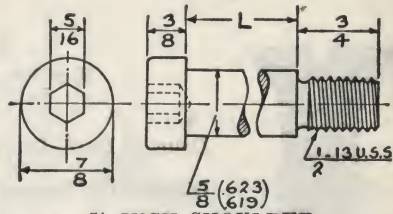
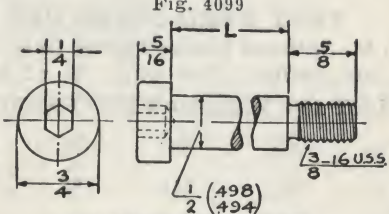
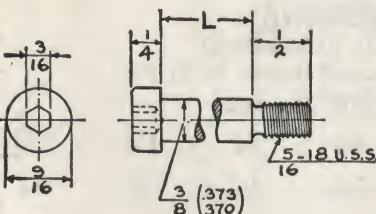


Fig. 4099

Adapted for holding together a great variety of machine parts. For cam attachments. Used to attach strippers to punches in fast production work. For safe and efficient performance wherever shoulder screws are required. One wrench furnished with each 25 screws.



$\frac{3}{8}$ INCH SHOULDER				$\frac{1}{2}$ INCH SHOULDER				$\frac{5}{8}$ INCH SHOULDER				LIST
Shoulder Diam.	Shoulder Lengths	Number in Package	Weight Lbs. Ozs.	Shoulder Diam.	Shoulder Lengths	Number in Package	Weight Lbs. Ozs.	Shoulder Diam.	Shoulder Lengths	Number in Package	Weight Lbs. Ozs.	
.....	.....	50	6 0	.....	.....	50	6 11	.....	.....	25	5 9	\$26.90
.....	.....	25	3 11	.....	.....	25	3 11	.....	.....	25	6 1	29.10
.....	.....	25	4 1	.....	.....	25	4 1	.....	.....	25	6 11	31.25
.....	.....	25	4 6	.....	.....	25	5 3	.....	.....	25	7 4	33.45
.....	.....	25	4 14	.....	.....	25	5 9	.....	.....	25	7 13	35.65
.....	.....	25	5 3	.....	.....	25	5 15	.....	.....	25	8 5	37.85
.....	.....	25	6 4	.....	.....	25	6 4	.....	.....	50	17 11	40.00
.....	.....	25	6 10	.....	.....	25	6 10	.....	.....	50	18 13	42.20
.....	.....	25	6 15	.....	.....	25	6 15	.....	.....	50	19 14	44.40
.....	.....	25	7 5	.....	.....	25	7 5	.....	.....	50	20 15	46.60
.....	.....	25	7 11	.....	.....	25	7 11	.....	.....	50	22 0	48.75
.....	.....	25	8 1	.....	.....	25	8 1	.....	.....	50	23 2	50.95
.....	.....	25	8 7	.....	.....	25	8 7	.....	.....	50	24 3	53.15
.....	.....	25	.....	.....	.....	25	.....	.....	.....	50	25 5	55.35
.....	.....	25	.....	.....	.....	25	.....	.....	.....	50	26 6	57.50
.....	.....	25	.....	.....	.....	25	.....	.....	.....	50	28 9	61.90
.....	.....	25	.....	.....	.....	25	.....	.....	.....	25	15 12	66.25

DISCOUNT.....	25% OFF
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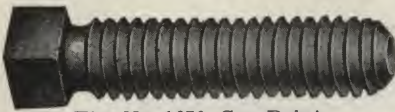


Fig. No. 1670, Cup Point

**STEEL SET SCREWS—Cup Point—Case Hardened****N. C., National Coarse Thread Only (U. S. Std.)**

Cone, Dog and Flat Points are special and charged accordingly.

**LIST 100, LIST ADOPTED FEBRUARY 1ST, 1924**

Width of Head...	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	...Width of Head
Depth of Head...	3/16	15/64	9/32	21/64	3/8	27/64	15/32	9/16	21/32	3/4	...Depth of Head
Threads to Inch...	20	18	16	14	13	12	11	10	9	8	...Threads to Inch
Diam. of Screw	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	Diam. of Screw
Length, In.	100 in Pkg.			50 in Pkg.				25 in Pkg.			Length, In.
1/2	\$2.80	\$3.15	\$3.65	...	...	...	...	...	...	...	1/2
5/8	2.85	3.20	3.70	\$ 5.35	\$ 6.55	...	...	...	...	...	5/8
3/4	2.90	3.25	3.75	5.45	6.65	\$11.15	\$11.55	...	...	...	3/4
7/8	3.10	3.40	4.00	5.55	6.75	11.35	11.75	...	...	...	7/8
1	3.25	3.55	4.30	5.65	6.85	11.55	11.95	\$21.10	...	...	1
1 1/4	3.60	3.90	4.80	6.15	7.60	11.75	12.15	21.50	\$35.70	...	1 1/4
1 1/2	3.95	4.20	5.25	6.65	8.35	11.95	12.35	21.90	36.20	\$47.50	1 1/2
1 3/4	4.25	4.70	5.90	7.25	9.10	12.90	13.30	22.30	36.70	48.10	1 3/4
2	4.55	5.20	6.55	7.90	9.80	13.80	14.20	22.70	37.20	48.70	2
2 1/4	4.80	5.65	7.15	8.65	10.60	14.85	15.30	24.40	39.80	51.50	2 1/4
2 1/2	5.10	6.15	7.75	9.45	11.40	16.00	16.50	26.10	42.30	53.35	2 1/2
2 3/4	5.35	6.60	8.40	10.15	12.15	17.15	17.65	27.80	44.80	57.20	2 3/4
3	5.65	7.10	9.00	10.90	12.35	18.25	18.85	29.35	47.40	59.85	3
3 1/4	...	...	...	11.70	14.15	19.75	20.40	31.30	50.00	63.25	3 1/4
3 1/2	...	...	...	12.45	15.35	21.20	21.90	33.20	52.80	66.65	3 1/2
3 3/4	...	...	...	13.25	16.60	22.70	23.30	35.20	55.60	69.75	3 3/4
4	...	...	...	14.00	17.85	24.20	24.85	37.10	58.25	73.20	4
4 1/4	...	...	...	...	...	...	25.40	39.50	61.15	77.50	4 1/4
4 1/2	...	...	...	...	...	...	27.95	41.85	63.85	82.15	4 1/2
4 3/4	...	...	...	...	...	...	...	44.35	66.70	86.40	4 3/4
5	...	...	...	...	...	...	...	...	69.60	90.85	5
<b>DISCOUNT</b>											
Broken Packages .....											60% OFF
Full Packages—Up to 499 .....											70% OFF
Full Packages—500 or More .....											75% OFF

**SET SCREW ASSORTMENT**

Fig. 1670A. 100 Assorted Set Screws. N. C., National Coarse Thread (U. S. Standard). Cup Point. 1/4 to 1/2 inch diameter. 1/2 to 2 inches long.

★ NET PACKAGE, \$1.75

**HEADLESS SET SCREWS**

Fig. 2771.

Headless Set Screws take same list as regular, measurements being taken over all.

<b>DISCOUNT</b>	Broken Packages .....	50% OFF
	Full Packages—Up to 1000 .....	70% OFF
	Full Packages—1000 or More .....	75% OFF

**FLAT HEAD STEEL CAP SCREWS****N. C., National Coarse Thread Only (U. S. Standard)**

5/8 x 3 in. and smaller, 100 in pkg. 3/4 x 2 in. and longer, 50 in pkg.

**LIST 100, LIST ADOPTED FEBRUARY 1st, 1924**

Fig. No. 2622

Diam. of Head, In.....	15/32	5/8	3/4	13/16	7/8	1 1/8	1 3/8
Diameter of Screws ...	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Length over all, In.	3/4	\$2.70	\$3.00	\$3.75	...	...	...
	1	3.05	3.35	4.15	\$5.30	...	...
	1 1/4	3.35	3.55	4.45	5.65	\$6.85	...
	1 1/2	3.65	3.80	4.80	6.05	7.35	...
	1 3/4	3.80	4.10	5.20	6.50	7.80	\$11.50
	2	4.00	4.35	5.60	6.90	8.30	12.15
	2 1/4	4.15	4.65	6.00	7.50	9.00	13.00
	2 1/2	...	4.95	6.40	8.05	9.75	13.90
	2 3/4	...	5.25	6.80	8.60	10.50	14.65
	3	...	...	7.20	9.15	11.20	15.40
Threads to Inch.....	20	18	16	14	13	11	10

<b>DISCOUNT</b>	Flat Head (Broken Packages .....	25% OFF
	Cap Screws (Full Packages .....	40% OFF



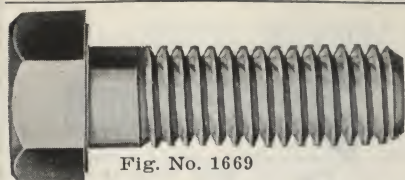


Fig. No. 1669

## HEXAGON HEAD STEEL CAP SCREWS

### N. C. Coarse Pitch (Old U. S. Standard Thread)

#### CUT THREADS

Prices of screws not listed will be furnished on application  
New List Prices, Adopted August 1, 1936

#### LIST PRICES PER HUNDRED

Thread Length, Inches	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2	2-1/4
Threads To Inch	20	18	16	14	13	12	11	10	9	8
Height of Head, Inch	3/16	15/64	9/32	21/64	3/8	27/64	15/32	9/16	21/32	3/4
Diameter Hexagon Head	7/16	1/2	9/16	5/8	3/4	13/16	7/8	1	1-1/8	1-5/16

#### DIAMETER SCREW

	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
1/2	\$1.30	\$1.50	\$1.90	.....	.....	.....	.....	.....	.....	.....
5/8	\$1.35	\$1.60	\$2.00	.....	.....	.....	.....	.....	.....	.....
3/4	\$1.40	\$1.70	\$2.10	\$3.00	\$4.70	.....	.....	.....	.....	.....
7/8	\$1.50	\$1.80	\$2.20	\$3.10	\$4.90	.....	.....	.....	.....	.....
1	\$1.60	\$1.90	\$2.30	\$3.20	\$5.10	\$7.90	\$8.60	.....	.....	.....
1-1/4	\$1.80	\$2.10	\$2.50	\$3.50	\$5.50	\$8.40	\$9.20	\$13.30	.....	.....
1-1/2	\$2.00	\$2.30	\$2.70	\$3.80	\$5.90	\$8.90	\$9.80	\$14.10	.....	.....
1-3/4	\$2.20	\$2.50	\$3.00	\$4.10	\$6.30	\$9.40	\$10.40	\$14.90	.....	.....
2	\$2.40	\$2.70	\$3.30	\$4.50	\$6.70	\$10.00	\$11.00	\$15.70	\$24.60	\$36.00
2-1/4	\$2.60	\$2.90	\$3.60	\$4.90	\$7.20	\$10.60	\$11.60	\$16.50	\$25.80	\$38.00
2-1/2	\$2.80	\$3.20	\$3.90	\$5.30	\$7.70	\$11.20	\$12.20	\$17.30	\$27.20	\$40.00
2-3/4	\$3.00	\$3.50	\$4.30	\$5.70	\$8.20	\$11.80	\$12.80	\$18.10	\$28.60	\$42.00
3	\$3.30	\$3.80	\$4.70	\$6.20	\$8.70	\$12.40	\$13.50	\$18.90	\$30.00	\$44.00
3-1/4	\$4.00	\$4.60	\$5.30	\$6.70	\$9.20	\$13.00	\$14.20	\$19.80	\$31.50	\$46.00
3-1/2	\$4.70	\$5.40	\$5.90	\$7.20	\$9.80	\$13.60	\$15.00	\$20.80	\$33.00	\$49.00
3-3/4	.....	.....	\$6.80	\$7.90	\$10.40	\$14.30	\$15.80	\$21.80	\$35.00	\$52.00
4	.....	.....	\$7.70	\$8.60	\$11.00	\$15.00	\$16.60	\$22.80	\$37.00	\$55.00
4-1/2	.....	.....	.....	.....	\$13.40	\$17.50	\$18.60	\$25.50	\$41.00	\$61.00
5	.....	.....	.....	.....	.....	.....	\$22.60	\$30.90	\$45.00	\$68.00
5-1/2	.....	.....	.....	.....	.....	.....	.....	.....	\$54.00	\$80.00
6	.....	.....	.....	.....	.....	.....	.....	.....	\$63.00	\$92.00
Add For Each 1/4 Inch	\$0.70	\$0.80	\$0.90	\$1.00	\$1.20	\$1.50	\$2.00	\$2.70	\$4.50	\$6.00

Number In Box

100

50

25

20

#### DISCOUNT

Broken Packages  
50% OFF

Full Packages To 500  
55% OFF

500 or More  
60% OFF

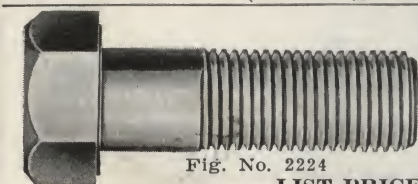


Fig. No. 2224

## HEXAGON HEAD STEEL CAP SCREWS

### N. F. Fine Pitch S.A.E. Std.

New List Prices, August 1, 1936

Prices of screws not listed will be furnished on application.

#### LIST PRICES PER 100

Thread Length	5/8	23/32	13/16	29/32	1	1-3/32	1-3/16	1-3/8
Threads To Inch	28	24	24	20	20	18	18	16
Height of Head	3/16	15/64	9/32	21/64	3/8	27/64	15/32	9/16
Diameter Hexagon Head	7/16	1/2	9/16	5/8	3/4	13/16	7/8	1
DIAM. SCREW	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
1/2	\$1.30	\$1.50	\$1.90	.....	.....	.....	.....	.....
5/8	\$1.35	\$1.60	\$2.00	.....	.....	.....	.....	.....
3/4	\$1.40	\$1.70	\$2.10	\$3.00	\$4.70	.....	.....	.....
7/8	\$1.50	\$1.80	\$2.20	\$3.10	\$4.90	.....	.....	.....
1	\$1.60	\$1.90	\$2.30	\$3.20	\$5.10	\$7.90	\$8.60	.....
1-1/4	\$1.80	\$2.10	\$2.50	\$3.50	\$5.50	\$8.40	\$9.20	\$13.30
1-1/2	\$2.00	\$2.30	\$2.70	\$3.80	\$5.90	\$8.90	\$9.80	\$14.10
1-3/4	\$2.20	\$2.50	\$3.00	\$4.10	\$6.30	\$9.40	\$10.40	\$14.90
2	\$2.40	\$2.70	\$3.30	\$4.50	\$6.70	\$10.00	\$11.00	\$15.70
2-1/4	\$2.60	\$2.90	\$3.60	\$4.90	\$7.20	\$10.60	\$11.60	\$16.50
2-1/2	\$2.80	\$3.20	\$3.90	\$5.30	\$7.70	\$11.20	\$12.20	\$17.30
2-3/4	\$3.00	\$3.50	\$4.30	\$5.70	\$8.20	\$11.80	\$12.80	\$18.10
3	\$3.30	\$3.80	\$4.70	\$6.20	\$8.70	\$12.40	\$13.50	\$18.90
3-1/4	\$4.00	\$4.60	\$5.30	\$6.70	\$9.20	\$13.00	\$14.20	\$19.80
3-1/2	\$4.70	\$5.40	\$5.90	\$7.20	\$9.80	\$13.60	\$15.00	\$20.80
3-3/4	.....	.....	\$6.80	\$7.90	\$10.40	\$14.30	\$15.80	\$21.80
4	.....	.....	\$7.70	\$8.60	\$11.00	\$15.00	\$16.60	\$22.80
4-1/2	.....	.....	.....	.....	\$13.40	\$17.50	\$18.60	\$25.50
5	.....	.....	.....	.....	.....	.....	\$22.60	\$30.90
5-1/2	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....
Add For Each 1/4 Inch	\$0.70	\$0.80	\$0.90	\$1.00	\$1.20	\$1.50	\$2.00	\$2.70

Number In Box

100

50

25

Broken Packages

50% OFF

Full Packages To 500

55% OFF

500 or More

60% OFF

## ASSORTED HEXAGON HEAD CAP SCREWS

### 50 in Package

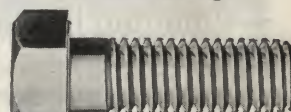


Fig. No. 2895

### NATIONAL COARSE THREAD

(Formerly U. S. Standard)

Diameter, Inches	1/4	5/16	3/8	7/16	1/2
Length, Inches	1	2	3	4	5
1/2	3	4	7	2	..
3/4	3	4	7	2	..
1	..	4	6	2	3
1-1/4	..	..	3	2	4
1-1/2	..	..	3	..	4

★ NET PACKAGE, \$1.00

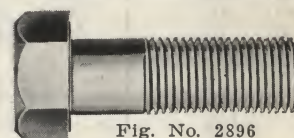


Fig. No. 2896

### NATIONAL FINE THREAD

(Formerly S.A.E. Thread)

Diameter, Inches	1/4	5/16	3/8	7/16	1/2
Length, Inches	1	2	3	4	5
1	3	3	..	..	..
1-1/4	3	3	4	3	..
1-1/2	..	3	4	3	3
1-3/4	..	..	3	3	3
2	..	..	..	..	3
2-1/4	..	..	..	..	3
2-1/2	..	..	..	..	3

★ NET PACKAGE, \$1.00



## IRON MACHINE SCREWS



Fig. No. 1682, Round Head

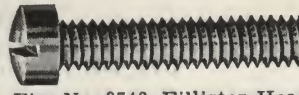


Fig. No. 2742, Fillister Head

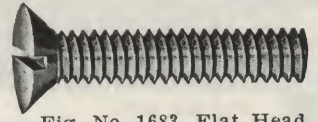


Fig. No. 1683, Flat Head

**IMPORTANT!** Standard package, all sizes, 1 gross in box. We do not break packages.

List Adopted April 2, 1923.

## LIST PRICES PER GROSS

Threads per Inch, Standard.....	56	48	48 40 36	32	32	32 24	24	20	18	16	Threads per Inch Standard.
Diameter.....	2	3	4	6	8	10	12	1/4	5/16	3/8	Diameter.
Length, In.											Length, In.
1/8	\$0.24	\$0.25	\$0.26	\$0.28	....	....	....	....	....	....	1/8
3/16	.25	.26	.27	.29	\$0.35	\$0.45	....	....	....	....	3/16
1/4	.26	.27	.28	.30	.36	.46	\$0.64	....	....	....	1/4
5/16	.27	.28	.29	.31	.37	.48	.66	\$0.80	....	....	5/16
3/8	.28	.29	.30	.32	.39	.50	.68	.84	\$1.55	....	3/8
7/16	.29	.30	.31	.34	.41	.52	.70	.88	1.60	....	7/16
1/2	.30	.31	.32	.36	.43	.54	.74	.92	1.65	\$2.20	1/2
5/8	.32	.33	.34	.40	.47	.58	.82	1.00	1.75	2.40	5/8
3/4	.33	.34	.36	.43	.49	.62	.86	1.05	1.80	2.50	3/4
7/8	.34	.36	.38	.46	.53	.66	.92	1.10	1.90	2.65	7/8
1	....	....	.42	.50	.57	.70	.98	1.20	2.00	2.85	1
1 1/8	....	....	.46	.54	.63	.76	1.04	1.30	2.10	3.05	1 1/8
1 1/4	....	....	.52	.58	.69	.82	1.10	1.40	2.25	3.25	1 1/4
1 1/2	....	....	.60	.68	.82	.95	1.24	1.60	2.45	3.55	1 1/2
1 3/4	....	....	....	.82	.95	1.12	1.40	1.80	2.75	3.95	1 3/4
2	....	....	....	.96	1.08	1.30	1.60	2.00	3.05	4.40	2
2 1/4	....	....	....	....	1.25	1.50	1.80	2.25	3.35	4.85	2 1/4
2 1/2	....	....	....	....	1.45	1.70	2.05	2.50	3.65	5.40	2 1/2
2 3/4	....	....	....	....	1.65	1.95	2.30	2.75	4.00	6.00	2 3/4
3	....	....	....	....	1.85	2.15	2.60	3.10	4.40	6.60	3
Full Packages Only ..... Round Head      Flat Head      Fillister Head											
1 to 9 Gross ..... 50% OFF      50% OFF      50% OFF											
10 to 49 Gross ..... 67 1/2% OFF      67 1/2% OFF      67 1/2% OFF											
50 Gross or More ..... 70-5% OFF      70-5% OFF      70-5% OFF											

## DISCOUNT

## BRASS MACHINE SCREWS

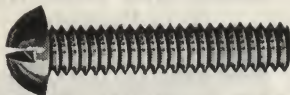


Fig. No. 1684, Round Head

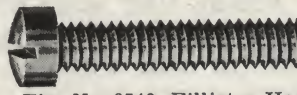


Fig. No. 2743, Fillister Head

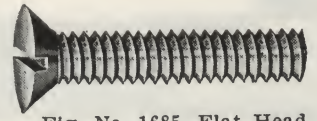


Fig. No. 1685, Flat Head

**IMPORTANT!** Standard package, all sizes, 1 gross in box. We do not break packages.

List Adopted April 2, 1923.

## LIST PRICES PER GROSS

Threads per Inch, Standard.....	56	48	48 40 36	32	32	32 24	24	20	18	16	Threads per Inch Standard.
Diameter.....	2	3	4	6	8	10	12	1/4	5/16	3/8	Diameter.
Length, In.											Length, In.
1/8	\$0.28	\$0.34	\$0.40	\$0.52	....	....	....	....	....	....	1/8
3/16	.30	.36	.42	.54	\$0.70	\$0.95	....	....	....	....	3/16
1/4	.32	.38	.44	.58	.76	1.05	\$1.60	....	....	....	1/4
5/16	.34	.40	.46	.62	.82	1.15	1.70	\$2.30	....	....	5/16
3/8	.36	.42	.48	.66	.88	1.25	1.80	2.40	\$4.60	....	3/8
7/16	.38	.44	.50	.70	.94	1.35	1.90	2.50	4.80	....	7/16
1/2	.40	.46	.54	.76	1.02	1.45	2.00	2.65	5.00	\$7.10	1/2
5/8	.44	.52	.62	.92	1.20	1.75	2.20	2.95	5.40	7.70	5/8
3/4	.50	.58	.68	1.00	1.30	1.90	2.40	3.15	5.80	8.20	3/4
7/8	.56	.66	.74	1.10	1.45	2.05	2.60	3.45	6.30	8.90	7/8
1	....	....	.82	1.20	1.60	2.20	2.80	3.75	6.80	9.60	1
1 1/8	....	....	.90	1.30	1.75	2.35	3.00	4.05	7.30	10.30	1 1/8
1 1/4	....	....	1.00	1.45	1.90	2.55	3.25	4.35	7.80	11.00	1 1/4
1 1/2	....	....	1.25	1.65	2.15	2.90	3.75	4.95	8.50	12.10	1 1/2
1 3/4	....	....	....	1.95	2.45	3.35	4.25	5.55	9.30	13.40	1 3/4
2	....	....	....	2.25	2.75	3.80	4.75	6.15	10.40	14.70	2
2 1/4	....	....	....	....	3.10	4.25	5.25	6.75	11.50	16.20	2 1/4
2 1/2	....	....	....	....	3.45	4.75	5.75	7.35	12.60	17.80	2 1/2
2 3/4	....	....	....	....	3.80	5.25	6.25	8.00	13.70	19.50	2 3/4
3	....	....	....	....	4.15	5.75	6.75	8.65	14.90	21.60	3
Full Packages Only ..... Round Head      Flat Head      Fillister Head											
1 to 9 Gross ..... 40% OFF      40% OFF      40% OFF											
10 to 49 Gross ..... 60% OFF      60% OFF      60% OFF											
50 Gross or More ..... 62 1/2-5% OFF      62 1/2-5% OFF      62 1/2-5% OFF											

## DISCOUNT

**NOTE:** Lengths, diameters, and threads per inch not listed on this page, both iron and brass are special, but are furnished to the extent that they may be in stock, or when required in sufficient quantities of a size to warrant being made to order. Such non-listed lengths and diameters take the list prices of the next longer or larger listed sizes.



# IRON [STEEL] WOOD SCREWS—Flat and Round Head

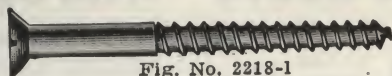


Fig. No. 2218-1

New List Adopted November 20, 1935—Standard package, 1 gross in a box. We do not break packages.

## LIST PRICES PER GROSS

No.	0	1	2	3	4	5	6	7	8	9	10	11	12	14	16	18	20	24
Length, In.																		
1/4	\$0.30	\$0.30	\$0.30	\$0.32	\$0.32													
3/8	.32	.32	.34	.34	.34	\$0.34	\$0.38	\$0.42	\$0.46									
1/2		.34	.36	.36	.36	.40	.40	.44	.48	\$0.52	\$0.56							
5/8			.36	.38	.38	.40	.44	.48	.52	.60	.64	.68	.72	.76	1.05			
3/4			.38	.40	.40	.42	.46	.50	.54	.58	.62	.66	.70	.80	1.10	\$1.40		
7/8				.44	.46	.48	.52	.56	.60	.64	.68	.72	.76	.84	.92	1.25	1.55	
1				.46	.48	.50	.54	.58	.62	.66	.70	.76	.84	.92	1.25	1.55	\$1.85	
1 1/4					.60	.62	.66	.70	.75	.80	.86	.95	1.05	1.35	1.70	2.05	\$2.40	
1 1/2						.72	.78	.84	.90	.96	1.05	1.15	1.25	1.50	1.90	2.30	2.70	
1 3/4							.78	.84	.90	1.00	1.10	1.20	1.30	1.60	2.00	2.40	2.80	
2							.82	.88	.95	1.05	1.15	1.25	1.35	1.75	2.20	2.65	3.10	
2 1/4							.90	.96	1.05	1.15	1.25	1.35	1.50	1.85	2.40	3.00	3.60	
2 1/2								1.10	1.20	1.32	1.45	1.65	2.05	2.60	3.20	3.40	4.00	\$4.95
2 3/4								1.20	1.30	1.42	1.55	1.75	2.25	2.80	3.40	3.95	4.55	5.70
3									1.90	2.10	2.30	2.80	3.35	3.95	4.20	4.95	6.60	
3 1/2												2.50	3.00	3.55	4.20	5.25	7.10	
4													2.50	3.00	3.55	4.50	6.00	
4 1/2														3.30	3.85	4.50	7.10	
5														3.65	4.20	5.00	7.60	

## Discount

	Full Packages Only	Flat Head	Round Head
1 to 9 Gross	.....	43% OFF	40% OFF
10 to 49 Gross	.....	55% OFF	53% OFF
50 Gross or More	.....	55-20% OFF	53-20% OFF

Iron and Brass Screws. Lengths and diameters not listed are specials; but are furnished to the extent that they may be in stock, or when required in sufficient quantities of a size to warrant being made to order. Such non-listed lengths and diameters take the list prices of the next longer or larger listed sizes. The following varieties of Iron Screws can be furnished from this list at varying discounts: Flat, Round, Oval, Fillister Bright, Blued Brass, Nickel and Silver Plated; Japanned, Coppered, Tinned, Sherardized and Galvanized. When ordering, state length first.

# BRASS WOOD SCREWS—Flat and Round Head

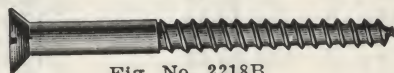


Fig. No. 2218B

New List Adopted November 20, 1935—Standard package, 1 gross in a box.

## LIST GROSS. We do not break packages.

No.	0	1	2	3	4	5	6	7	9	10	11	12	14	16	18
Length, In.															
1/4	\$0.64	\$0.66	\$0.70	\$0.76	\$0.86										
3/8	.66	.70	.76	.82	.90	\$0.98	\$1.10	\$1.25	\$1.45	\$1.65					
1/2		.78	.84	.90	.98	1.10	1.25	1.45	1.65	1.80	\$2.05	\$2.30			
5/8			.90	1.00	1.10	1.25	1.40	1.60	1.80	2.00	2.25	2.50	\$2.75	\$3.10	
3/4			1.00	1.10	1.20	1.35	1.50	1.75	2.00	2.25	2.50	2.75	3.10	3.45	
7/8					1.40	1.55	1.75	2.00	2.25	2.50	2.75	3.10	3.45	3.80	
1					1.50	1.65	1.85	2.15	2.40	2.70	3.00	3.35	3.80	\$4.90	
1 1/4							2.20	2.50	2.80	3.20	3.60	4.00	4.45	5.75	
1 1/2							2.45	2.80	3.20	3.60	4.00	4.55	5.10	6.50	
1 3/4									3.65	4.10	4.60	5.20	5.85	7.40	
2									4.00	4.50	5.10	5.75	6.55	8.15	\$10.30
2 1/4											5.60	6.35	7.15	9.00	11.35
2 1/2											6.20	7.00	7.80	9.85	12.50
2 3/4													9.15	11.20	14.40
3													11.20	13.25	16.65
3 1/2															20.20

## Discount

	Full Packages Only	Flat Head	Round Head
1 to 9 Gross	.....	46% OFF	45% OFF
10 to 49 Gross	.....	67% OFF	66% OFF
50 Gross or More	.....	67-20% OFF	66-20% OFF

# METAL TAPPING SCREWS

LIST GROSS PLAIN FINISH — List of October 1, 1936



Fig. 4975-R Round Head  
Fig. 4976-O Oval Head  
Fig. 4977-B Binding Head  
Fig. 4978-F Flat Head

Diameter	4	6	7	8	10	12	14
Length							
1/4	\$0.35	\$0.38					
3/8	\$0.38	\$0.41	\$0.44	\$0.48	\$0.57		
1/2	\$0.41	\$0.44	\$0.48	\$0.52	\$0.62	\$0.74	\$0.84
5/8	\$0.44	\$0.48	\$0.52	\$0.56	\$0.67	\$0.80	\$0.92
3/4	\$0.46	\$0.51	\$0.56	\$0.61	\$0.72	\$0.87	\$1.01
7/8		\$0.55	\$0.61	\$0.66	\$0.77	\$0.94	\$1.10
1		\$0.59	\$0.65	\$0.71	\$0.82	\$1.01	\$1.18
1-1/4				\$0.81	\$0.93	\$1.15	\$1.36
1-1/2				\$0.91	\$1.04	\$1.30	\$1.53
1-3/4					\$1.16	\$1.46	\$1.72
2					\$1.28	\$1.62	\$1.90

Plain steel finish. Hardened, gimlet point. Plated prices on request; specify plating, size, length, and quantity.

## Discount

1 to 9 Gross	.....	45% OFF
10 Gross or More	.....	45-10% OFF



# CARRIAGE BOLTS—With Square Nuts

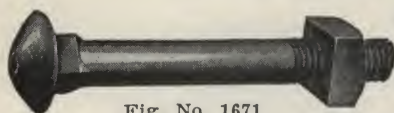


Fig. No. 1671

## STANDARD SIZE PACKAGES

1/4 inch	100 in a box
5/16 and 1/2 inch	50 in a box
5/8 inch	25 in a box
Larger sizes	Bulk

## LIST 100 PIECES—Effective December 8, 1932

Length Inches	1/4 Inch Diameter	5/16 Inch Diameter	3/8 Inch Diameter	7/16 Inch Diameter	1/2 Inch Diameter	5/8 Inch Diameter
3/4	\$1.05	\$1.60	\$2.00	.....	.....	.....
1	1.10	1.65	2.10	\$3.50	\$4.25	.....
1 1/4	1.15	1.70	2.20	3.60	4.40	\$8.35
1 1/2	1.20	1.80	2.35	3.75	4.60	8.60
2	1.35	2.00	2.60	4.05	4.95	9.10
2 1/2	1.55	2.25	2.90	4.40	5.35	9.60
3	1.70	2.50	3.20	4.75	5.75	10.10
3 1/2	1.85	2.75	3.50	5.10	6.15	10.60
4	2.30	2.95	3.80	5.40	6.55	11.10
4 1/2	2.45	3.40	4.10	5.75	6.95	11.60
5	2.60	3.60	4.50	6.10	7.35	12.10
5 1/2	2.75	3.85	4.80	6.45	7.80	12.60
6	2.90	4.05	5.10	6.80	8.20	13.10
6 1/2	3.65	4.90	6.30	8.25	9.75	13.60
7	3.85	5.15	6.65	8.70	10.20	14.10
7 1/2	4.00	5.35	6.95	9.15	10.65	14.60
8	4.20	5.60	7.30	9.60	11.10	15.10
8 1/2	4.35	5.80	7.60	10.05	12.05	15.60
9	4.55	6.05	7.95	10.50	12.50	16.10
9 1/2	4.70	6.25	8.25	10.95	12.95	16.60
10	4.90	6.50	8.60	11.40	13.40	17.10
11	5.25	6.95	9.30	12.25	14.30	18.10
12	5.60	7.40	10.00	13.10	15.20	19.10
13	6.15	8.05	11.10	14.40	16.10	20.10
14	6.45	8.50	11.75	15.25	17.00	21.10
15	6.80	8.95	12.40	16.20	17.90	22.10
16	7.10	9.40	13.05	17.10	18.80	23.10
17	7.45	9.85	13.70	18.00	19.70	24.10
18	7.75	10.30	14.35	18.90	20.60	25.10
19	8.10	10.75	15.00	19.80	21.50	26.10
20	8.45	11.20	15.65	20.70	22.40	27.10

## DISCOUNT

1 to 99 Pounds	50% OFF
100 Pounds or More	60% OFF

# PHILLIPS RECESSED HEAD SCREWS AND BOLTS

Self-centering. They hold on the driver. A tapered head and a tapered recess exactly fits a tapered driver. This important improvement provides fast driving, high holding power, neat appearance, and reduced spoilage as the HEADS WILL NOT BREAK OFF. Prices are for screws and bolts in packages. All sizes are not available at present, however, a complete size range will soon be available.

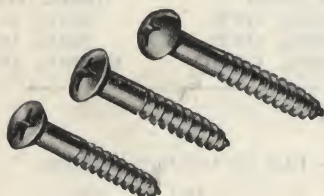


Fig. 4981

## PHILLIPS WOOD SCREWS

Refer to Standard Lists, November 20, 1935.

Iron, Flat Head	54% OFF
Iron, Round Head	49% OFF
Iron, Oval Head	49% OFF
Brass, Flat Head	75% OFF
Brass, Round Head	73% OFF
Brass, Oval Head	73% OFF
Other finishes	Prices on Request

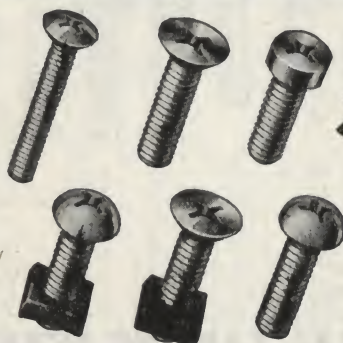


Fig. 4982

## PHILLIPS MACHINE SCREWS

Refer to Standard Lists, April 2, 1928.

Iron, Flat Head	55% OFF
Iron, Round Head	55% OFF
Iron, Oval Head	55% OFF
Iron, Fillister Head	55% OFF
Brass, Flat Head	51% OFF
Brass, Round Head	51% OFF
Brass, Oval Head	51% OFF
Brass, Fillister Head	51% OFF
Other finishes	Prices on Request

Fig. 4983

## STEEL STOVE BOLTS

Refer to Standard List, May 1, 1934.

Flat Head, Nuts Attached	62% OFF
Round Head, Nuts Attached	62% OFF



Fig. 4984

## PHILLIPS HAND DRIVERS

### ★ NET EACH

Bit	General Use	Heavy Duty
Lgth. Ins.	Size	Size
3	1A	1
4	2A	2
6	3A	3
8	4A	4
	★ NET	★ NET
	\$0.40	\$0.50
	\$0.45	\$0.60
	\$0.60	\$0.75
	\$0.75	\$1.00

Fig. 4985. (Not Illustrated)

## PHILLIPS BITS

For Hand Brace, Power and Spiral Drivers. Standard bits available. Special bits will be produced on short notice, prices on request.

Power Bits ★ NET EACH, \$1.00

Spiral Driver Bits ★ NET EACH, \$0.90

Hand Brace Bits ★ NET EACH, \$0.70

## BIT SIZE REQUIRED

Bit Size	Heads	Wood Screw Diam.	Machine Screw Diam.	Stove Bolt Diam.
1	Fl.-Ov.	To 4	To 4	.....
1	Round	To 4	To 5	1/8
2	Fl.-Ov.	5 to 9	5 to 10	1/8 to 3/16
2	Round	5 to 10	6 to 10	5/32 to 3/16
3	Fl.-Ov.	10 to 16	12 to 5/16	1/4 to 5/16
3	Round	11 to 16	12 to 5/16	1/4 to 5/16
4	Fl.-Ov.	18-Up	3/8 Up	3/8 to 1/2
4	Round	18-Up	3/8 Up	3/8 to 1/2



# MACHINE BOLTS—With Square Heads & Square Nuts

## STANDARD SIZE PACKAGES



1/4 inch	.....	100 in box
5/16 and 1/2 inch	.....	50 in box
5/8 inch	.....	25 in box
Larger sizes	.....	Bulk

Fig. No. 1673

Manufacturers' Standard List in Effect December 8, 1932

## LIST 100 PIECES

	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4
Length	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.
Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
3/4	\$1.10	\$1.70	\$ 2.25	.....	.....	.....	.....	.....	.....	.....	.....
1	1.15	1.75	2.35	\$3.95	\$4.60	\$8.10	.....	.....	.....	.....	.....
1 1/4	1.25	1.80	2.45	4.10	4.80	8.35	.....	.....	.....	.....	.....
1 1/2	1.30	1.95	2.60	4.25	5.00	8.60	\$10.95	\$16.70	\$23.25	.....	.....
2	1.50	2.20	2.90	4.55	5.35	9.10	11.60	17.60	24.40	.....	.....
2 1/2	1.70	2.45	3.20	4.85	5.75	9.60	12.25	18.50	25.55	.....	.....
3	1.85	2.70	3.50	5.20	6.15	10.10	12.90	19.40	26.70	\$45.90	\$ 54.45
3 1/2	2.05	2.95	3.80	5.50	6.50	10.60	13.55	20.30	27.85	47.20	56.10
4	2.50	3.15	4.10	5.85	6.85	11.10	14.20	21.20	29.00	48.50	57.75
4 1/2	2.65	3.60	4.40	6.15	7.25	11.60	14.85	22.10	30.15	49.80	59.40
5	2.80	3.80	4.80	6.50	7.65	12.10	15.50	23.00	31.30	51.10	61.05
5 1/2	2.95	4.00	5.10	6.85	8.05	12.60	16.15	23.90	32.45	52.40	62.70
6	3.10	4.20	5.40	7.15	8.45	13.10	16.80	24.80	33.60	53.70	64.35
6 1/2	3.80	5.10	6.50	9.20	10.15	13.60	17.45	25.70	34.75	55.00	66.00
7	4.00	5.35	6.85	9.65	10.60	14.10	18.10	26.60	35.90	56.30	67.65
7 1/2	4.15	5.55	7.15	10.10	11.05	14.60	18.75	27.50	37.05	57.60	69.30
8	4.35	5.80	7.50	10.55	11.50	15.10	19.40	28.40	38.20	58.90	70.95
8 1/2	4.50	6.00	7.80	11.00	11.95	15.60	20.05	29.30	39.35	60.20	72.60
9	4.70	6.25	8.15	11.45	12.40	16.10	20.70	30.20	40.50	61.50	74.25
9 1/2	4.85	6.45	8.45	11.95	12.85	16.60	21.35	31.10	41.65	62.80	75.90
10	5.05	6.70	8.80	12.35	13.30	17.10	22.00	32.00	42.80	64.10	77.55
11	5.40	7.15	9.50	13.20	14.70	18.10	23.30	33.80	45.10	66.70	80.85
12	5.75	7.60	10.20	14.05	15.60	19.10	24.60	35.60	47.40	69.30	84.15
13	6.30	8.25	11.30	15.35	16.50	20.10	25.90	37.40	49.70	71.90	87.45
14	6.60	8.70	11.95	16.20	17.40	21.10	27.20	39.20	52.00	74.50	90.75
15	6.95	9.15	12.60	17.15	18.30	22.10	28.50	41.00	54.30	77.10	94.05
16	7.25	9.60	13.25	18.05	19.20	23.10	29.80	42.80	56.60	79.70	97.35
17	7.60	10.05	13.90	18.95	20.10	24.10	31.10	44.60	58.90	82.30	100.65
18	7.90	10.50	14.55	19.85	21.00	25.10	32.40	46.40	61.20	84.90	103.95
20	8.60	11.40	15.85	21.65	22.80	27.10	35.00	50.00	65.80	90.10	110.55

## DISCOUNT

1 to 99 Pounds	.....	50% OFF
100 Pounds or More	.....	60% OFF

## COACH AND LAG SCREWS

WITH SQUARE HEADS



Fig. No. 1674

## LIST 100 PIECES

Length	1/4	5/16	3/8	1/2	5/8	3/4
Inches	Diam.	Diam.	Diam.	Diam.	Diam.	Diam.
Inches	Inches	Inches	Inches	Inches	Inches	Inches
1	\$2.35	\$2.35	\$2.85	\$5.25	.....	.....
1 1/2	2.15	2.15	2.60	4.85	\$7.95	\$12.50
2	2.35	2.35	2.85	4.45	7.40	11.75
2 1/2	2.55	2.55	3.10	4.85	6.85	11.00
3	2.80	2.80	3.40	5.30	7.50	11.90
3 1/2	3.05	3.05	3.70	5.75	8.15	12.80
4	3.30	3.30	4.00	6.20	8.80	13.70
4 1/2	3.55	3.55	4.30	6.65	9.45	14.60
5	3.80	3.80	4.65	7.10	10.10	15.50
5 1/2	4.05	4.05	5.00	7.55	10.75	16.40
6	4.35	4.35	5.35	8.00	11.40	17.30
6 1/2	4.65	4.65	5.70	8.45	12.05	18.20
7	4.95	4.95	6.05	8.90	12.70	19.10
7 1/2	5.25	5.25	6.40	9.35	13.35	20.00
8	5.55	5.55	6.75	9.80	14.00	20.90
9	6.15	6.15	7.45	10.70	15.20	22.65
10	6.75	6.75	8.15	11.60	16.40	24.40
12	.....	.....	9.65	13.60	19.00	28.10

DISCOUNT	1 to 99 Pounds	.....	50% OFF
	100 Pounds or More	.....	55-5% OFF

## HOT PRESSED TAPPED NUTS

N. C., NATIONAL COARSE THREAD  
(U. S. Standard)

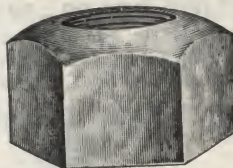


Fig. 2624S

## SQUARE

Bolt	Approx.	List
Inches	No. in 200 lb. Keg	100
1/4	11000	\$ 0.55
5/16	6400	.75
3/8	4000	1.05
7/16	4200	1.50
1/2	2800	2.00
5/8	2000	2.30
3/4	1500	2.70
7/8	900	3.80
1	600	6.10
1 1/8	400	8.30
1 1/4	325	11.90
1 1/2	225	15.60
1 3/4	175	21.00
1 1/2	130	28.15
1 3/4	100	40.85
1 1/2	80	52.50
2	55	76.60

Fig. 2624H

## HEXAGON

Bolt	Approx.	List
Inches	No. in 200 lb. Keg	100
1/4	12000	\$ 0.65
5/16	7500	.90
3/8	4500	1.20
7/16	4700	1.75
1/2	3200	2.25
5/8	2300	2.55
3/4	1600	3.00
7/8	1000	4.30
1	650	6.80
1 1/8	450	9.30
1 1/4	350	13.10
1 1/2	275	17.35
1 3/4	200	23.30
1 1/2	150	31.30
1 3/4	120	45.40
1 1/2	95	58.30
2	65	85.15

DISCOUNT	Up to 99 Pounds	.....	60% OFF
	100 Pounds or More	.....	65% OFF



## STOVE BOLTS



Fig. No. 1680, Flat Head



Fig. No. 1681, Round Head

Standard package,  $\frac{3}{8}$  x 4 inch and smaller, 100 in a box.  
Larger and longer sizes, 50 in a box. We do not break boxes.

## LIST 100. Revised May 1, 1934

Diameter, Inches	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Length, Inches						
$\frac{3}{8}$	\$0.57	\$0.67	....	....	....	....
$\frac{1}{2}$	.60	.70	\$1.12	....	....	....
$\frac{5}{8}$	.63	.73	1.18	....	....	....
$\frac{3}{4}$	.66	.76	1.25	\$2.12	\$2.90	....
$\frac{7}{8}$	.68	.79	1.31	2.20	3.00	....
1	.71	.83	1.38	2.27	3.10	\$ 8.80
$1\frac{1}{8}$	.76	.86	1.44	2.34	3.20	9.00
$1\frac{1}{4}$	.80	.90	1.51	2.41	3.30	9.20
$1\frac{3}{8}$	.84	.96	1.57	2.50	3.40	9.40
$1\frac{1}{2}$	.89	1.01	1.64	2.59	3.50	9.60
$1\frac{3}{4}$	1.00	1.12	1.80	2.77	3.75	10.00
2	1.11	1.27	1.98	3.00	4.00	10.50
$2\frac{1}{4}$	....	1.41	2.16	3.20	4.25	11.10
$2\frac{1}{2}$	....	1.59	2.34	3.45	4.55	11.70
$2\frac{3}{4}$	....	1.77	2.55	3.70	4.80	12.30
3	....	1.95	2.75	3.95	5.20	13.00
$3\frac{1}{2}$	....	2.25	3.10	4.40	5.80	14.40
4	....	2.55	3.45	4.85	6.40	15.80
$4\frac{1}{2}$	....	2.85	3.80	5.30	7.00	....
5	....	3.15	4.15	5.75	7.60	....
$5\frac{1}{2}$	....	3.45	4.50	6.20	....	....
6	....	3.75	4.85	6.65	....	....
Add to List For Nkl. Pktg.	.80	.90	1.20	1.50	2.00	3.50

## DISCOUNT

Full Boxes Up to 999	60% OFF
1000 or More	72-1/2% OFF

## PLOW BOLTS—With Forged Nuts

In ordering Plow Bolts, please state what style threads are ordered.  
Right-hand threads will be sent, unless left-hand heads are specified.  
Standard Size Package, 50 in a Box

## LIST PRICES PER 100

	No. 1. Key Head Fig. No. 1675	No. 2. Round Head Fig. No. 1676	No. 3. Round Head Square Shank Fig. No. 1677
Diameter, Inches	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Length, Inches			
$1\frac{1}{4}$	\$2.30	\$2.75	\$3.75
$1\frac{1}{2}$	2.45	2.90	4.00
$1\frac{3}{4}$	2.60	3.05	4.25
2	2.75	3.20	4.50
$2\frac{1}{4}$	2.95	3.35	4.75
$2\frac{1}{2}$	3.15	3.50	5.00
$2\frac{3}{4}$	3.35	3.75	5.30
3	3.60	4.00	5.65
$3\frac{1}{4}$	3.85	4.40	6.00
$3\frac{1}{2}$	4.30	4.90	6.45
$3\frac{3}{4}$	4.75	5.40	6.95
4	5.25	5.95	7.55

## DISCOUNT

Up to 99 Pounds	45% OFF
100 Pounds or More	50% OFF

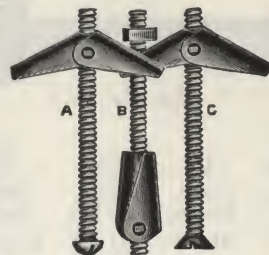
TWO WING SPRING  
TOGGLE BOLTS

Fig. 2878

Wings spring into open position and bolt works instantly at any angle in any hollow material. Especially adapted for work in malachite or gypsum. Round Head (Style A) are carried in stock and will be furnished unless otherwise specified. Cadmium plated.

Diam. in	Length in	Use in	No. in Pkg.	LIST
$\frac{1}{8}$	3	$\frac{3}{8}$	100	\$6.75
$\frac{3}{16}$	3	$\frac{1}{2}$	50	\$6.85
$\frac{3}{16}$	4	$\frac{1}{2}$	50	\$7.15
$\frac{3}{16}$	5	$\frac{1}{2}$	50	\$7.50
$\frac{3}{16}$	6	$\frac{1}{2}$	50	\$7.80
$\frac{1}{4}$	3	$\frac{5}{8}$	50	\$7.85
$\frac{1}{4}$	4	$\frac{5}{8}$	50	\$8.15
$\frac{1}{4}$	5	$\frac{5}{8}$	50	\$8.55
$\frac{1}{4}$	6	$\frac{5}{8}$	50	\$8.95

## DISCOUNT

Broken Boxes	25% OFF
Full Boxes	45% OFF
1000 or More	45-10% OFF

## STEP OR FENDER BOLTS

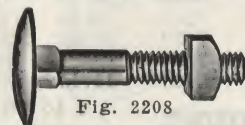
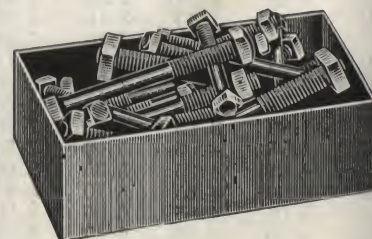


Fig. 2208

Diam., In.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
Length, In.	— LIST 100 —		
1	\$3.00	\$4.00	\$6.00
$1\frac{1}{4}$	3.15	4.20	6.25
$1\frac{1}{2}$	3.30	4.40	6.50
$1\frac{3}{4}$	3.45	4.60	6.75
2	3.60	4.80	7.00
$2\frac{1}{4}$	3.75	5.00	7.25
$2\frac{1}{2}$	3.90	5.20	7.50
3	4.20	5.60	8.00

## DISCOUNT

1 to 99	35% OFF
100 to 999	40% OFF
1000 or more	50% OFF

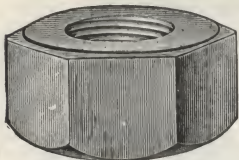
CARRIAGE OR MACHINE  
BOLT ASSORTMENTS

50 bolts and nuts of assorted sizes in a cardboard container.

Fig. No.	Kind	★ NET BOX
3722	Carriage	\$0.45
3723	Machine	\$0.50



## SEMI-FINISHED HEXAGON NUTS

Fig. No. 1687  
RegularFig. No. 1687J  
Check or Jam

\*List is for Nuts put up in packages.  
# For nuts ordered in kegs deduct 15% from List.

Thickness, Inches

Size of Screw, Inches	Width, Inches	Check Regular	Check or Jam	Number of Threads	No. in Pkg.	LIST
1/4	1/2	1/4	3/16	20	100	\$0.86
5/16	19/32	5/16	7/32	18	100	\$1.15
3/8	11/16	3/8	1/4	16	100	\$1.55
7/16	25/32	7/16	5/16	14	100	\$2.19
1/2	7/8	1/2	5/16	13	100	\$2.76
9/16	31/32	9/16	11/32	12	100	\$3.80
5/8	1- 1/16	5/8	3/8	11	100	\$4.60
3/4	1- 1/4	3/4	7/16	10	50	\$6.56
7/8	1- 7/16	7/8	1/2	9	50	\$10.06
1	1- 5/8	1	9/16	8	25	\$13.80
1-1/8	1-13/16	1- 1/8	5/8	7	25	\$19.21
1-1/4	2	1- 1/4	3/4	7	20	\$26.11
1-3/8	2- 3/16	1- 3/8	13/16	6	16	\$36.80
1-1/2	2- 3/8	1- 1/2	7/8	6	12	\$48.19

Size, Inches	*Broken Package	*Full Package	*1000 or More, 1 Size	# Full Keg
1/4 to 1/2	45%	60-5%	60-10%	60-10-5%
9/16 to 1	45%	55-5%	55-10%	55-10-5%
1-1/8 & up	45%	50-5%	.....	50-10-5%

STEEL AND BRASS MACHINE SCREW  
NUTS

Fig. No. 2225



Fig. No. 2226

Standard package, all sizes, 1 gross in box. We do not break packages. Standard coarse threads are more generally used.

## LIST PRICES PER GROSS

SIZE		Diam., In.	Thick- ness, In.	Steel, List per Gro.		Brass, List per Gro.	
Standard Coarse Thread Pitch No. Thread	Standard Fine Thread Pitch No. Thread			Square	Hexagon	Square	Hexagon
2-56	2-64	5/16	1/16	\$0.40	\$0.45	\$0.95	\$0.95
3-48	3-56	3/8	1/8	.40	.45	.95	.95
4-40 4-36	4-48	1/2	3/16	.31	.34	.80	.80
5-40	5-44	5/8	1/4	.33	.36	1.00	1.00
6-32	6-40	3/4	5/16	.33	.36	1.00	1.00
8-32	8-36	7/8	3/8	.35	.40	1.25	1.25
10-24	10-32	1	7/8	.37	.43	1.40	1.40
12-24	12-28	1 1/8	1	.56	.63	2.40	2.40
14-20	14-28	1 1/4	1 1/8	.63	.72	2.80	2.80
16-18	16-24	1 3/8	1 1/4	1.10	1.35	5.70	5.70
18-16	18-24	1 1/2	1 1/2	1.50	1.70	7.80	7.80

## DISCOUNT—Hexagon and Square

	Steel	Steel	Brass	Brass
	N. Pl.	N. Pl.	N. Pl.	N. Pl.
1 to 9 Gross	40%	20%	60%	50%
10 to 49 Gross	50%	30%	67%	60%
50 Gross and Up	55-5%	35-5%	72-5%	64-5%

## WING NUTS

Malleable Iron National Coarse Threads—Fig. 2979



Fig. No. 2979

LIST PER 100		LIST PER 100	
Diam. In.	List	Diam. In.	List
1/4	1.10	3/8	2.15
3/8	1.30	1/2	2.75
1/2	1.60	3/4	3.70
1 to 99	15% OFF	100 to 499	30% OFF
500 or More	30-10% OFF		

Pressed Steel—Fig. No. 2217

## ★ NET 100

Diam. Inch	★ NET	Diam. Inch	★ NET
3/16	\$0.70	3/8	\$1.20
1/4	\$0.75	7/16	\$2.50
5/16	\$0.95	1/2	\$2.50



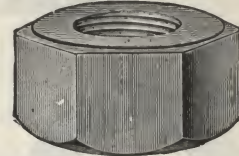
Fig. No. 2217

## PLAIN SEMI-FINISHED NUTS S. A. E.

Fig. 2216

\*List is for Nuts put up in packages.

# For nuts ordered in kegs deduct 15% from list.



Screw Diam.	Pitch of Thread	Thickness of Nut	Diam. Across Flats	In Pkg.	LIST
1/4	28	7/32	7/16	100	\$0.75
5/16	24	17/64	1/2	100	\$0.86
3/8	24	21/64	9/16	100	\$1.09
7/16	20	3/8	5/8	100	\$1.50
1/2	20	7/16	3/4	100	\$1.90
9/16	18	31/64	7/8	100	\$2.88
5/8	18	35/64	15/16	100	\$3.68
3/4	16	21/32	1- 1/16	50	\$5.75
7/8	14	49/64	1- 1/4	50	\$9.20
1	14	7/8	1- 7/16	50	\$13.34
1-1/8	12	63/64	1- 5/8	25	\$18.98
1-1/4	12	1- 3/32	1-13/16	25	\$25.88
1-3/8	12	1-13/64	2	20	\$36.23
1-1/2	12	1- 5/16	2- 3/16	16	\$47.15

Size, Inches	*Broken Package	*Full Package	*1000 or More, 1 Size	# Full Keg
1/4 to 1/2	45%	60-5%	60-10%	60-10-5%
9/16 to 1	45%	55-5%	55-10%	55-10-5%
1-1/8 & up	45%	50-5%	.....	50-10-5%

## SEMI-FINISHED CASTLE NUTS S. A. E.

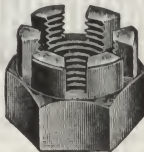


Fig. 2215

\*List is for Nuts put up in packages.  
# For nuts ordered in kegs deduct 15% from list.

Diam. of Screws	No. of Threads per Inch	Total Thick- ness	Diam. Across Flats	In Pkg.	LIST
1/4	28	9/32	7/16	100	\$1.32
5/16	24	21/64	1/2	100	\$1.55
3/8	24	13/32	9/16	100	\$1.84
7/16	20	29/64	5/8	100	\$2.30
1/2	20	9/16	3/4	100	\$3.28
9/16	18	39/64	7/8	100	\$4.83
5/8	18	23/32	15/16	100	\$5.64
3/4	16	13/16	1- 1/16	50	\$8.97
7/8	14	29/32	1- 1/4	50	\$12.36
1	14	1	1- 7/16	25	\$18.40
1-1/8	12	1- 5/32	1- 5/8	25	\$25.88
1-1/4	12	1- 1/4	1-13/16	25	\$34.50
1-3/8	12	1- 3/16	2	20	\$46.00
1-1/2	12	1- 1/2	2- 3/16	16	\$57.50

Size, Inches	*Broken Package	*Full Package	*1000 or More, 1 Size	# Full Keg
1/4 to 1/2	45%	60-5%	60-10%	60-10-5%
9/16 to 1	45%	55-5%	55-10%	55-10-5%
1-1/8 & up	45%	50-5%	.....	50-10-5%

## THUMB SCREWS—Malleable Iron

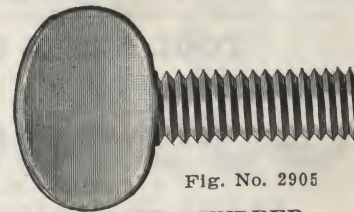


Fig. No. 2905

## LIST PER HUNDRED

Length Under Head Inches	Diameter and U. S. Threads per Inch				
	3/8	1/2	5/8	3/4	1 1/2 or 1 3/4
1/2	1.20	1.50	2.00	2.70	.....
3/4	1.45	1.80	2.35	3.00	.....
1	1.70	2.10	2.70	3.40	\$ 4.60
1 1/4	1.95	2.40	3.05	3.80	5.20
1 1/2	2.20	2.70	3.40	4.20	5.80
2	2.80	3.30	4.10	5.00	7.00
2 1/2	.....	4.30	5.20	6.20	8.60
3	.....	5.30	6.30	7.40	10.20

1 to 99	25% OFF
100 to 999	33 1/3% OFF
1000 or More	40% OFF



# **QUICK REPAIR WASHERS AND THRUST COLLARS**



Fig. 4979  
Overlatch Type

Fig. 4980  
Type B Split Type

Saves time and expense in tearing down equipment. Excess play is quickly taken up without removing parts or disturbing bearings. Easily applied, slip them over the shafting and tap them securely in place.

## **DISCOUNTS**

Steel Overlatch Washers .....	25% OFF
Type 'B' Malleable Washers .....	15% OFF
Type 'B' Bronze Washers .....	15% OFF
Type 'B' Malleable Thrust Collars .....	LIST NET
Type 'B' Bronze Thrust Collars .....	LIST NET

## **LIST EACH—Specify Thickness**

Outside Diameter Inches	Inside Diameter Inches	Thickness Inches	Steel Overlatch	'B' Malleable	'B' Bronze
<b>WASHERS</b>					
2	1	1/8	\$0.20	.....	.....
2-1/4	1-1/4	1/8	\$0.22	.....	.....
2-1/2	1-1/2	1/8	\$0.24	.....	.....
2-3/4	1-3/4	1/8	\$0.26	.....	.....
3-1/4	2	1/8	\$0.30	.....	.....
3-3/8	1-7/8	1/4	5/16	\$0.35	\$1.00
3-3/8	2	1/4	5/16	\$0.35	\$1.00
4-1/2	2-1/4	3/16	1/4	\$0.60	\$1.25
4-1/2	2-1/2	3/16	1/4	\$0.60	\$1.25
5	2-3/4	3/16	1/4	\$0.85	\$2.00
5	3	3/16	1/4	\$0.85	\$2.00
5-1/2	3-1/4	3/16	1/4	\$1.00	\$2.25
5-1/2	3-1/2	3/16	1/4	\$1.00	\$2.25
6	3-3/4	3/16	1/4	\$1.25	\$2.50
6	4	3/16	1/4	\$1.25	\$2.50
<b>THRUST COLLARS</b>					
7	3-1/2	1/2	5/8	\$1.75	\$3.25
7	3-3/4	1/2	5/8	\$1.75	\$3.25
7-1/2	4	1/2	5/8	\$2.00	\$4.25
7-1/2	4-1/4	1/2	5/8	\$2.00	\$4.25
8-1/2	4-1/2	1/2	5/8	\$2.25	\$5.00
8-1/2	4-3/4	1/2	5/8	\$2.25	\$5.00
9	5	1/2	5/8	\$2.50	\$5.50
10	5-1/2	1/2	5/8	\$2.50	\$5.50
10	6	1/2	5/8	\$3.00	\$6.50
10	6-1/2	1/2	5/8	\$3.00	\$6.50

# **MILLED STUDS—U. S. S. THREADS**



Fig. No. 1969

In ordering give total length of stud and the length of thread both on the nut end (N), and on the tap end (T). Tap end is steamtight. Ordinary sizes carried in stock in U. S. S. threads only.

NOTE: Studs varying from specifications given are special. Prices on application.

## **LENGTHS OF THREADS ON REGULAR STUDS**

N=Nut End

T=Tap End

Diameter	N T	N T	N T	N T	N T	N T	N T
1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
1 1/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4
1 1/2	2	2	2	2	2	2	2
1 3/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4
2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
2 1/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4
2 1/2	3	3	3	3	3	3	3
2 3/4	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4	3 1/4
3	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
3 1/4	3 3/4	3 3/4	3 3/4	3 3/4	3 3/4	3 3/4	3 3/4
3 1/2	4	4	4	4	4	4	4
3 3/4	4 1/4	4 1/4	4 1/4	4 1/4	4 1/4	4 1/4	4 1/4
4	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
4 1/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
4 1/2	5	5	5	5	5	5	5
4 3/4	5 1/4	5 1/4	5 1/4	5 1/4	5 1/4	5 1/4	5 1/4
5	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
5 1/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4
5 1/2	6	6	6	6	6	6	6
5 3/4	6 1/4	6 1/4	6 1/4	6 1/4	6 1/4	6 1/4	6 1/4
6	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2

Number of Threads to in.

New List Prices, adopted Feb. 1, 1924

## **LIST PRICES PER 100**

Threads to In.....	16	14	13	11	10	9	8	7
Diam.....	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/2
Length, In.								
1 1/4	\$5.40	\$6.50	\$7.05	.....	.....	.....	.....	.....
1 1/2	5.60	6.75	7.40	\$10.10	.....	.....	.....	.....
1 3/4	5.85	7.00	7.70	10.40	.....	.....	.....	.....
2	6.10	7.20	8.05	10.75	\$15.40	.....	.....	.....
2 1/4	6.35	7.35	8.35	11.05	15.95	.....	.....	.....
2 1/2	6.60	7.70	8.65	11.40	16.45	\$24.00	.....	.....
2 3/4	6.80	7.95	9.00	11.75	17.00	25.00	.....	.....
3	7.05	8.20	9.30	12.05	17.50	26.00	\$34.00	\$43.20
3 1/4	.....	8.40	9.65	12.40	18.05	27.00	35.50	45.20
3 1/2	.....	8.65	9.95	12.75	18.60	28.00	37.00	47.20
3 3/4	.....	8.90	10.25	13.05	19.10	29.00	38.50	49.25
4	.....	9.25	10.60	13.40	19.60	30.00	40.00	51.25
4 1/4	.....	.....	10.75	13.65	20.05	30.80	41.00	52.80
4 1/2	.....	.....	10.90	13.90	20.40	31.50	42.00	53.40
4 3/4	.....	.....	11.20	14.15	20.85	32.60	43.00	55.90
5	.....	.....	11.55	14.40	21.20	33.00	44.00	57.40
5 1/4	.....	.....	.....	14.60	21.70	33.80	45.00	58.90
5 1/2	.....	.....	.....	14.85	22.00	34.50	46.00	60.50
5 3/4	.....	.....	.....	15.10	22.45	35.30	47.00	62.00
6	.....	.....	.....	15.35	22.75	36.00	48.00	63.65

DISCOUNT { Full Package ..... 60% OFF  
Broken Package ..... 50% OFF

# **TOOL STEEL BALLS**



Fig. 2024S—Steel

Fig. 2024B—Bronze—Prices On Request

Size, Inches	LIST 1000	Size, Inches	LIST 1000	Size, Inches	LIST 1000
1/16	\$7.00	9/32	\$12.00	5/8	\$73.00
3/32	\$7.00	5/16	\$14.00	11/16	\$100.00
1/8	\$6.00	11/32	\$16.00	3/4	\$128.00
5/32	\$7.00	3/8	\$18.00	13/16	\$155.00
3/16	\$8.00	7/16	\$28.00	7/8	\$188.00
7/32	\$9.00	1/2	\$35.00	15/16	\$230.00
1/4	\$10.00	9/16	\$60.00	1	\$270.00

DISCOUNT { 1 to 99 ..... 45% OFF  
100 or More ..... 50% OFF  
500 or More ..... 60-5% OFF

# **BOILER STAY BOLTS**

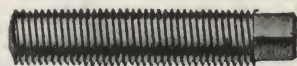


Fig. 1699

18 inch and 36 inch lengths in stock. Heads are 1 inch long and are figured in length of bolt. Bolts shorter than 12 inches are special and take special list. 12 V Thread furnished unless otherwise specified.

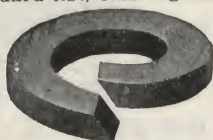
Diameter, Inches	List Foot
3/4	\$0.60
7/8	.80
1 1/8	1.00
1 1/4	1.00
1 1/2	1.30
1 3/4	1.30
2	1.50

DISCOUNT ..... 45% OFF



# S.A.E. KANTLINK SPRING LOCK WASHERS

The sizes shown below are the most practical for general purposes, and these sizes only are carried in stock. We will fill orders for such standard sizes (not listed below) as may be called for, at manufacturer's standard list, less regular discount.



A—Bolt Size.  
W—Bolt Width.  
T—Thickness.

Fig. 2213

For Bolts Inches	Wire Section Thickness	Type	1000 Approx. Pounds	List 100	List 1000
No. 6 (1/8)	3/64x1/32	Standard	1/4	\$0.30	\$2.15
No. 8 (5/32)	3/64x3/64	Standard	7/16	\$0.27	\$1.95
No. 10 (3/16)	1/16x3/64	Standard	11/16	\$0.24	\$1.75
No. 12 (7/32)	1/16x1/16	Standard	1	\$0.27	\$1.95
1/4	3/32x3/64	Light	1-3/8	\$0.26	\$2.10
1/4	3/32x1/16	Standard	1-7/8	\$0.28	\$2.25
1/4	3/32x5/64	Heavy	2-1/4	\$0.29	\$2.35
5/16	1/8x3/64	Light	2-5/16	\$0.34	\$2.75
5/16	1/8x1/16	Standard	3-1/16	\$0.37	\$3.00
5/16	1/8x3/32	Heavy	4-7/16	\$0.42	\$3.35
3/8	1/8x1/16	Light	4	\$0.45	\$3.60
3/8	1/8x3/32	Standard	5	\$0.47	\$3.75
3/8	1/8x1/8	Heavy	7-1/2	\$0.60	\$4.80
7/16	5/32x1/16	Light	5	\$0.64	\$5.15
7/16	5/32x1/8	Standard	10-3/4	\$0.80	\$6.40
7/16	5/32x5/32	Heavy	12-13/16	\$1.04	\$8.30
1/2	11/64x1/16	Light	6-1/8	\$0.70	\$5.80
1/2	11/64x1/8	Standard	13-1/16	\$0.95	\$7.60
1/2	11/64x11/64	Heavy	17-1/4	\$1.49	\$11.90
9/16	3/16x3/32	Light	11-1/2	\$1.05	\$8.40
9/16	3/16x1/8	Standard	15-5/8	\$1.28	\$10.25
9/16	3/16x3/16	Heavy	23-11/16	\$1.92	\$15.35
5/8	13/64x3/32	Light	14-5/16	\$1.56	\$12.50
5/8	13/64x5/32	Standard	23-3/4	\$1.97	\$15.80
5/8	13/64x13/64	Heavy	31-15/16	\$2.60	\$20.80
3/4	1/4x1/8	Light	27-7/8	\$3.59	\$28.70
3/4	1/4x3/16	Standard	43	\$3.20	\$25.60
3/4	1/4x1/4	Heavy	55-1/2	\$4.25	\$34.00
7/8	17/64x5/32	Light	42	\$4.69	\$37.50
7/8	17/64x3/16	Standard	51-1/2	\$4.91	\$39.30
7/8	17/64x17/64	Heavy	73	\$6.45	\$51.60
1	5/16x3/16	Light	64-7/8	\$6.00	\$60.00
1	5/16x1/4	Standard	90-13/16	\$6.57	\$65.70
1	5/16x5/16	Heavy	113-7/8	\$7.10	\$71.00
1-1/8	3/8x3/16	Light	96	\$6.40	\$64.00
1-1/8	3/8x1/4	Standard	125	\$9.00	\$90.00
1-1/8	3/8x3/8	Heavy	191	\$10.90	\$109.05
1-1/4	7/16x3/16	Light	120	\$8.60	\$86.00
1-1/4	7/16x1/4	Standard	161-1/2	\$12.40	\$124.00
1-1/4	7/16x5/16	Heavy	197-3/8	\$12.80	\$128.00
1-3/8	7/16x5/16	Standard	214-1/4	\$14.00	\$140.00
1-1/2	1/2x5/16	Standard	282	\$17.00	\$170.00

Packed as follows: Sizes No. 6 to 1/2 inch, 1000 in a box; Sizes 9/16, 5/8, 3/4 and 7/8 inch, 500 in a box; Sizes 1 inch and larger, 100 to a box.

**DISCOUNT** { Broken Packages ..... 50% OFF  
Full Packages ..... 60% OFF

# SPRING LOCK WASHER ASSORTMENTS

Fig. 2819. Can assortment of 50 S.A.E. standard size lock washers: 5—3/16; 11—1/4; 11—5/16; 11—3/8; 4—7/16; 5—1/2; and 3—5/8 inch.

★ NET CAN ASSORTMENT, \$0.15

Fig. 2819-39. Small can assortment of 39 S.A.E. standard size lock washers: 3/16; 1/4; 5/16; 3/8; 7/16; 1/2; and 5/8 inch.

★ NET CAN ASSORTMENT, \$0.10

Fig. 2214. Garage wood box assortment of 500 S.A.E. standard size lock washers: 50—3/16; 100—1/4; 100—5/16; 150—3/8; 25—7/16; 50—1/2; 10—9/16; 15—5/8.

★ NET BOX ASSORTMENT, \$1.50

# WROUGHT IRON PUNCHED WASHERS

In 200 Pound Kegs

Fig. No. 2211

U. S. Standard Sizes.

Adopted July 15, 1935.



# LIST PRICES 100 POUNDS

Size of Bolt Inches	Outside Diameter	Size of Hole	Thickness, Wire Gauge, No. and In.	List per 100 Lbs.	Number in 100 Pounds
3/16	9/16	1/4	18 3/4	\$14.00	36200
1/4	3/4	5/16	16 1/4	\$12.20	14900
5/16	7/8	3/8	16 1/4	\$11.40	11100
3/8	1	7/16	14 3/4	\$10.50	6700
7/16	1 1/4	1/2	14 3/4	\$9.80	4100
1/2	1 3/8	9/16	12 3/4	\$9.40	2600
9/16	1 1/2	5/8	12 3/4	\$9.30	2200
5/8	1 3/4	11/16	10 1/8	\$9.30	1300
3/4	2	13/16	9 5/8	\$9.20	910
7/8	2 1/4	15/16	8 11/4	\$9.20	652
1	2 1/2	1 1/16	8 11/4	\$9.20	532
1 1/8	2 3/4	1 1/4	8 11/4	\$9.20	454
1 1/4	3	1 3/8	8 11/4	\$9.20	384
1 3/8	3 1/4	1 1/2	7 3/4	\$9.20	300
1 1/2	3 1/2	1 5/8	7 3/4	\$9.20	260
1 5/8	3 3/4	1 3/4	7 3/4	\$9.50	227
1 3/4	4	1 7/8	7 3/4	\$9.50	200
1 7/8	4 1/4	2	7 3/4	\$9.50	176
2	4 1/2	2 1/16	7 3/4	\$9.50	159
2 1/4	4 3/4	2 3/8	5 7/32	\$10.50	121
2 1/2	5	2 5/8	4 15/64	\$10.50	104
2 3/4	5 1/4	2 7/8	3 1/4	\$11.50	91
3	5 1/2	3 1/8	2 9/32	\$12.50	77

200 Pound Kegs ..... \$3.50 CWT. OFF LIST

100 Pound Kegs ..... \$3.00 CWT. OFF LIST

50 to 99 Pound Lots ..... \$2.50 CWT. OFF LIST

25 to 49 Pound Lots ..... \$2.00 CWT. OFF LIST

10 to 24 Pound Lots ..... \$1.50 CWT. OFF LIST

1 to 9 Pound Lots ..... LIST NET

# BRIGHT STEEL WASHERS

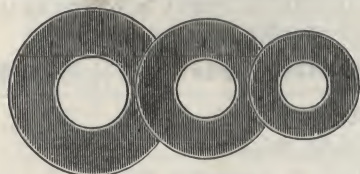


Fig. No. 2888

Made of high grade cold rolled steel, clean cut, uniform in gauge and quality. U. S. standard sizes.

Inches	List, Pound
1/8	\$0.45
3/16	.40
1/4	.34
5/16	.30
3/8	.28
7/16	.26
1/2	.25
5/8	.24
3/4	.24
7/8	.24
1	.24

**DISCOUNT** { 1 lb. pkg., 35% OFF  
5 lb. pkg., 40% OFF

# MILD STEEL MACHINERY BUSHINGS

LIST PER 100

Size Hole, Inches	Gauge Steel No.	List Per 100
3/16	18	\$ 1.00
1/4	18	1.50
5/16	14	2.00
3/8	14	2.00
1/2	14	2.50
5/8	18	2.50
3/4	14	3.00
7/8	10	3.50
1	18	3.00
1 1/8	14	4.00
1 1/4	10	5.00
1 1/2	18	5.00
1 3/4	14	5.00
2	10	6.00
2 1/4	18	7.00
2 1/2	14	8.00
2 3/4	10	9.00
3	18	8.00
3 1/4	14	10.00
3 1/2	10	14.00
3 3/4	18	12.00
4	14	18.00
4 1/4	10	18.00
4 1/2	18	18.00
4 3/4	14	18.00
5	10	18.00



Fig. No. 2887

Made of high grade machinery steel and can be used on mowers, binders, drills, threshing machines, windmills, plows, etc.

No. A21 Assortment contains one each of 21 kinds, weight 5 ounces.

★ NET ASSORTMENT, \$0.30

No. A56 Assortment contains two each of the 21 kinds and 14 extra bushings 1/2 to 1 1/4—56 in all.

★ NET ASST., \$0.80

All mowers take 1 1/2 main axle, 1 1/4 crank shaft and counter shaft, 1/2 and 1 inch on wrist pin.

All binders take 1 1/2 main axle, 1/2 on knottor pins, and all corn binders take 1 1/4 main axle.

Sulky and gang plows and listers take 1 1/4 on axles; grain drills take 1 1/4 and 1 1/2.

Lots of 300 Ass't ..... 75% OFF  
Less than 300 ..... 65% OFF



## STEEL SPRING COTTER PINS

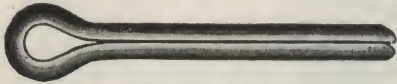


Fig. No. 1702

All measurements made under the eye.  
 $\frac{3}{64}$ ,  $\frac{1}{16}$ ,  $\frac{5}{64}$ ,  $\frac{3}{32}$ ,  $\frac{1}{8}$ ,  $\frac{5}{32}$ ,  $\frac{3}{16}$ ,  $\frac{1}{2}$  and  $\frac{5}{8}$  diameters are not listed but are furnished to the extent that they may be in stock, or when required in sufficient quantities of a size to warrant being made up. These sizes will take the list of the next larger diameter.  
 Intermediate lengths take next longer list. Sizes longer than shown on list—add one and one-half times last differential for each unit of length or fraction thereof.

### LIST PRICES PER THOUSAND. (New List Adopted May 24, 1928.)

Diam., Ins. Wire Gauge	$\frac{1}{16}$	$\frac{5}{32}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
	16	13	11	9	7	4	1	$1\frac{1}{32}$	$1\frac{5}{32}$	$1\frac{19}{32}$	$2\frac{23}{32}$
Length, In. (Under Eye)	1000 in std. pkg.					500 in std. pkg.	250 in std. pkg.	Bulk pkg.			
$\frac{1}{2}$	\$0.35	\$0.40	\$0.55								
$\frac{3}{4}$	.45	.53	.75	\$1.20	\$1.70						
1	.55	.65	.90	1.45	2.05	\$3.40	\$5.30				
$1\frac{1}{4}$	.65	.78	1.10	1.70	2.40	4.00	6.20				
$1\frac{1}{2}$	.75	.90	1.25	1.95	2.75	4.60	7.10	\$10.50			
$1\frac{3}{4}$	.95	1.03	1.45	2.20	3.10	5.20	8.05				
2	1.05	1.15	1.60	2.45	3.45	5.80	9.00	13.00	\$25.00		
$2\frac{1}{4}$				2.70	3.80	6.40	9.90				
$2\frac{1}{2}$		1.55	2.00	2.95	4.15	7.00	10.80	15.50	30.00		
3			2.50	3.45	5.00	7.80	11.70	18.00	35.00	\$57.50	\$100.00
$3\frac{1}{2}$					5.75	8.60	13.90	20.50	40.00	64.75	
4					6.50	9.40	16.10	23.00	45.00	72.00	120.00
5							18.30	27.00	55.00	85.00	140.00
6								31.00	65.00	98.00	160.00

**DISCOUNT** { Broken Packages ..... LIST NET 2000 to 9999 ..... 45% OFF  
 { Full Packages, Up to 1999 ..... 40% OFF 10000 or More ..... 50% OFF  
 Automobile Assortment Spring Cotter Pins, 100 cotter pins in box ..... ★ NET BOX, \$0.10  
 Agricultural Assortment Spring Cotter Pins, 100 cotter pins in box ..... ★ NET BOX, \$0.20

## BRASS COTTER PINS

Multiply regular steel list by eight  
 and take the same discount.

## BURGAN COTTER PIN EXTRACTOR

Fig. 3390

For quickly removing cotter pins  $\frac{1}{8}$  inch and smaller.  
 ★ NET EACH, \$1.35

## ROUND HEAD IRON RIVETS

Rivets are made from scant sized wire so as to fit holes of their rated size. Round head is standard and is carried in stock. Wagon Box, Cone, Flat, and Flat Countersunk Rivets may be stocked at the factory; made to order in 100 pound kegs for delivery in about two weeks.

### FIVE POUND PACKAGES LIST POUND



Fig. 1692

Minimum		Length, Inches								★ NET EXTRAS, EACH POUND	
Diam.	Wire										
Inches	Diam.	2	1	$\frac{7}{8}$	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{3}{8}$			
$\frac{7}{8}$	.422	.15	.15	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.16	.16	.18			
$\frac{3}{8}$	.361	.15	.15	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.16	.16	.18	1 to 9 Pounds	\$0.04	
$\frac{1}{2}$	.300	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.16	.16	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$	.18	10 to 24 Pounds	\$0.02 $\frac{1}{2}$	
$\frac{1}{4}$	.242	.16	.16	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$	.17	.17	.19	25 to 49 Pounds	\$0.02	
$\frac{3}{16}$	.180	.17	.17	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.18	.18	.21	50 to 99 Pounds	\$0.01 $\frac{1}{2}$	
$\frac{1}{8}$	.120	.21	.21	.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.22	.22	.29	100 to 199 Pounds	\$0.01	

**DISCOUNT, 200 Pound Kegs, Add Extras for Smaller Lots... 57  $\frac{1}{2}$ % OFF**

## FLATHEAD TINNERS' RIVETS, BLACK

LIST PRICES—BULK QUANTITIES are in 200 Pound Kegs

Description	6 oz.	8 oz.	10 oz.	12 oz.	14 oz.	1 lb.	$1\frac{1}{4}$ lb.	$1\frac{1}{2}$ lb.	$1\frac{3}{4}$ lb.	2 lb.	$2\frac{1}{2}$ lb.	3 lb.	$3\frac{1}{2}$ lb.	4 lb.	5 lb.	6 lb.	7 lb.	8 lb.	9 lb.	10 lb.	12 lb.	14 lb.	16 lb.
Black Rivets in packages of 1000	\$0.28	\$0.32	\$0.36	\$0.41	\$0.45	\$0.48	\$0.54	\$0.62	\$0.67	\$0.72	\$0.83	\$0.93	\$1.09	\$1.20	\$1.30	\$1.50	\$1.75	\$2.00	\$2.20	\$2.40	\$2.64	\$3.08	\$3.52
Bulk.....	.62	.52	.49	.46	.43	.40	.35	.33	.30	.28	.25	.24	.23	.22	.21	.20	.20	.20	.19	.19	.17	.17	.17

Tinned Rivets ..... Add ★ Net Extra Each Pound, \$0.05

**DISCOUNT** { 1000 to 9000 ..... 45% OFF  
 { 10000 or More ..... 57  $\frac{1}{2}$ % OFF

## BOILER RIVETS

 $\frac{1}{2}$  Inch or Over

BASE

Cone Head, 200 Pound Keg.....\$3.90  
 Round Head, 200 Pound Keg.....\$3.80  
 Countersunk Head, 200 Pound Keg...\$4.30

The above prices are subject to regular extras according to the diameter and length of the rivet. Specify size and quantity and we will advise the extra charge.

## GRATE BAR PINS



Fig. No. 3572

$\frac{1}{2}$  x  $2\frac{1}{2}$  inches.....★ Net Dozen, \$0.80  
 $\frac{3}{8}$  x  $2\frac{1}{2}$  inches.....★ Net Dozen, .90

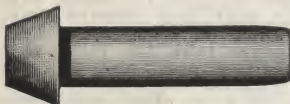


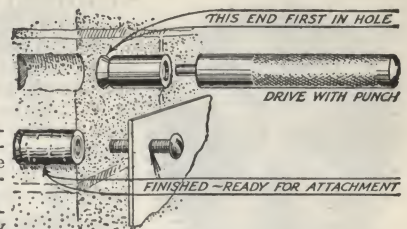
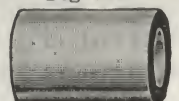
Fig. No. 1696



# ACKERMAN-JOHNSON EXPANSIVE SCREW ANCHORS

They Hold More and Require Less Hole

Fig. 3277



Consists of a doubly tapered internally threaded cone made of brass.

Cone is inserted within this lead-composition ductible sleeve.

Furnished assembled, sleeve being forced upon the cone to a normal position.

The improved method for attaching any object to hard materials, as concrete, brick, stone, tile, marble, etc. They are installed instantly.

**HOW TO ORDER.** When ordering Anchors, please specify sizes by numbers in first column at left, thus: 500 Anchors, No. 10x24.

## LIST PRICES, 100, SCREWS ARE NOT INCLUDED

Anchor Size No.	Shpg. Wt. Pounds, 1000	Minimum Hole Diam. In.	Minimum Depth, In.	List 100	Anchor Size No.	Shpg. Wt. Pounds, 1000	Minimum Hole Diam. In.	Minimum Depth, In.	List 100
6 x 32	7 1/2	1 1/4	3 3/8	\$3.80	5/8 in. x 18	95	3/4	1	\$9.75
8 x 32	15	1 1/2	4 5/8	4.50	3/4 in. x 16	162	3/4	1 1/4	12.00
10 x 24	22 1/2	1 3/4	5 3/8	4.95	7/8 in. x 14	231	7/8	1 1/2	15.00
12 x 24	34	2	6 3/8	6.50	1 in. x 13	221	1	1 3/4	15.00
1/4 in. x 20	50 1/2	2 1/8	7 3/8	7.20	1 1/8 in. x 11	512	1 1/8	2	25.00

## PILOTED SETTING PUNCH



Included without additional charge, with every box of anchors.

DISCOUNTS: Broken Boxes ..... 40% OFF Full Boxes ..... 50% OFF

## RAWLPLUGS—Fibre Screw Anchors



Fig. 4987

HOLDS WOOD SCREWS AND LAG SCREWS FAST IN ANY MATERIAL. Rawlplugs are screw anchors made of stiffened strands of tough jute fibre compressed together. The grip is exceptionally great because the hole, the Rawlplug and the screw are of practically the same diameter. NOT affected by moisture and will not deteriorate, pulp, shear, or work loose.

SIZE NUMBERS AND SCREW NUMBERS ARE THE SAME: THE RAWLPLUG NEED BE ONLY AS LONG AS THE SCREW THREAD SPECIFY SIZE AND LENGTH.

Rawl-Plug No.	Rawl-Plug Length	Screw Length Inches	LIST 100	Rawl-Plug No.	Rawl-Plug Length	Screw Length Inches	LIST 100	Rawl-Plug No.	Rawl-Plug Length	Screw Length Inches	LIST 100
FOR WOOD SCREWS				FOR WOOD SCREWS				FOR WOOD SCREWS			
6	5/8	1	\$1.25	12	3/4	1-1/4	\$2.20	20	1	1-1/2	\$4.90
6	3/4	1-1/4	\$1.30	12	1	1-1/2	\$2.45	20	1-1/2	2-2-1/2	\$5.90
6	1	1-1/2	\$1.45	12	1-1/4	1-3/4	\$2.70	20	2	3-3-1/2	\$6.90
				12	1-1/2	2-2-1/2	\$2.95	FOR LAG SCREWS			
				12	2	3-3-1/2	\$3.45	3/8	1-1/2	2-1/2-3	\$6.50
8	5/8	1	\$1.50					3/8	2	3-1-4-4	\$7.50
8	3/4	1-1/4	\$1.60	14	1	1-1/2	\$2.90	3/8	2-1/2	4-1-2-5	\$8.50
8	1	1-1/2	\$1.80	14	1-1/4	1-3/4	\$3.20	3/8	3	5-1-2-6	\$9.50
8	1-1/2	2-2-1/2	\$2.20	14	1-1/2	2-2-1/2	\$3.50	1/2	2	3-1-2-4	\$10.00
				14	2	3-3-1/2	\$4.10	1/2	2-1/2	4-1-2-5	\$11.50
10	3/4	1-1/4	\$1.80					1/2	3	5-1-2-6	\$13.00
10	1	1-1/2	\$2.05	16	1	1-1/2	\$3.30	5/8	2-1/2	4-1-2-5	\$13.50
10	1-1/4	1-3/4	\$2.30	16	1-1/2	2-2-1/2	\$4.10	5/8	3	5-1-2-6	\$15.00
10	1-1/2	2-2-1/2	\$2.55	16	2	3-3-1/2	\$4.90	5/8	3-1/2	7	\$16.50

DISCOUNT 25% OFF

## RAWLDRILLS

Fig. 4986

Machined type (M/T). For hand drilling use tool holder. Machined from solid bars of tool steel. For power drilling use Rawlchuck, prices on request.

Size No.	Diameter Inches	LIST DOZEN
6	5/32	\$6.00
8	11/64	\$6.00
10	3/16	\$6.00
12	1/4	\$6.00
14	9/32	\$6.60
16	5/16	\$7.20
20	3/8	\$8.40
7/16	7/16	\$10.80

## TOOL HOLDER



No.	For Sizes	DOZEN
14	6 to 14	\$9.00
20	20 & 7/16	\$12.00

## MAL-LEAD CINCH-TYPE BOLT ANCHORS

For use with Bolt Head in Hole and Bolt Nut on the outside.



Fig. 5279. Mrs. Type 6000

Double unit length, consists of 2 irons and 2 lead rings. The price does NOT include bolts. The anchor is alternate malleable and lead alloy conical rings journaled on a standard bolt. Single parts can be furnished at one-fourth the price. Threaded type 6500, for use with bolt head out of hole and threaded malleable nut in hole, furnished at same prices.

### LIST 100 DOUBLE UNITS (400 Parts)

For Bolt Diam. Inches	Hole Size Inch	Hole Depth Inch	Double Units in Pkg.	LIST 100 Units
1/4	5/8	1-1/16	100	\$8.00
5/16	5/8	1-1/16	100	\$9.00
3/8	3/4	1-1/2	50	\$11.00
1/2	1	1-3/4	50	\$13.00
5/8	1-1/8	1-7/8	50	\$24.00
3/4	1-3/8	2-1/2	25	\$35.00
7/8	1-1/2	2-3/4	10	\$44.00
1	1-5/8	3-1/4	10	\$63.00

### DISCOUNTS

Broken Package ..... 20% OFF Full Package ..... 20-10% OFF

## MACHINE BOLT EXPANSION SHIELDS

CLOSED END—CADMIUM PLATED

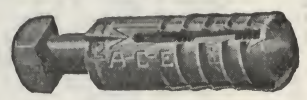


Fig. 5289

For use with machine bolts, drop rods, eye bolts, etc. U.S.S. threads. The wedge nut travels up the bolt expanding the shield. Made of certified malleable iron. Deep corrugations. Vibration will never loosen these shields.

For Bolt Diam.	Shield Length Inches	O. D. & Drill Size	No. in Pkg.	LIST 100
1/4	1-1/4	1/2	100	\$15.00
5/16	1-5/8	9/16	100	\$18.00
3/8	1-3/4	5/8	50	\$25.00
7/16	2	3/4	50	\$32.00
1/2	2-1/4	7/8	50	\$38.00
5/8	2-3/4	1-1/8	25	\$45.00
3/4	3-1/2	1-3/8	20	\$65.00
7/8	4	1-1/2	10	\$95.00
1	4-1/2	1-3/4	10	\$110.00

### DISCOUNTS

Broken Packages ..... 55% OFF Full Packages ..... 55-5% OFF

## LAG SCREW EXPANSION SHIELDS

MALLEABLE IRON CADMIUM PLATED



Fig. 1689. For Lag Screws

Prices are for shields only, lag screws are NOT included. Made of malleable iron and cadmium plated.

Lag Screw Size	Length Shield Inches	Drill Size Inches	Num. in Std. Pkg.	LIST 100
3/16	1	7/16	100	\$15.00
1/4	1-1/2	1/2	100	\$15.00
5/16	1-3/4	9/16	100	\$18.00
3/8	2-1/2	5/8	50	\$25.00
7/16	2-3/4	11/16	50	\$32.00
1/2	3	3/4	50	\$38.00
1/2	3-1/2	3/4	50	\$38.00
5/8	3-1/2	7/8	25	\$45.00
3/4	3-1/2	1-1/8	25	\$65.00
7/8	4-1/2	1-3/8	10	\$95.00
1	5	1-5/8	10	\$110.00

### DISCOUNTS

Broken Package ..... 70% OFF Full Package ..... 75% OFF



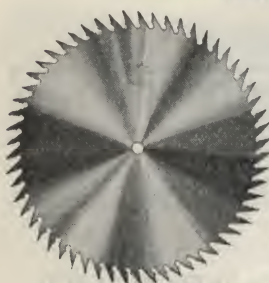
**CORDWOOD SAWS—Guaranteed Quality****CAREFULLY PACKED  
FOR SHIPMENT**★NET  
EACH  
Singly

Fig. No. 2589

Bushings for 10 gauge saws: 1½x1½ in.; 1½x1¼ in.; 1½x1¼ in. Specify size wanted.

★ NET EACH, \$0.25

A good quality saw, made expressly for sawing cordwood. Standard gauges only. 1½-inch bore. Hand-filed, every tooth is sharpened to a needle point. Temper is uniform. Hardened in fish oil, which penetrates deep and uniform. Saws are tested for hardness before shipping. Sizes shown are carried in stock.

Diameter, 18 inch 13 Gauge	\$2.50
Diameter, 20 inch 13 Gauge	\$3.00
Diameter, 22 inch 12 Gauge	\$3.50
Diameter, 24 inch 11 Gauge	\$4.10
Diameter, 26 inch 11 Gauge	\$4.80
Diameter, 28 inch 10 Gauge	\$5.60
Diameter, 30 inch 10 Gauge	\$6.40
Diameter, 32 inch 10 Gauge	\$7.30
Diameter, 34 inch 9 Gauge	\$10.25
Diameter, 36 inch 9 Gauge	\$11.75

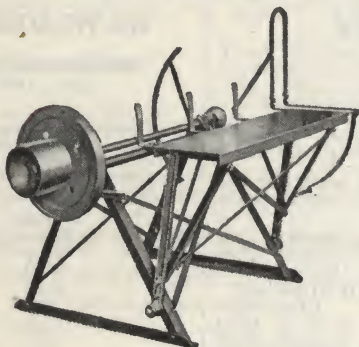
**ALL STEEL TILTING TABLE  
SAW FRAMES**

Fig. 4988

Steel frame. Bolts have lock washers to keep frame tightly assembled at all times. Shipped knocked down. Speed of saw mandrel 850 to 1300. 8 by 6 inch pulley. Outside diameter of saw mandrel, 1-7/16 inches. Diameter of mandrel is 1-3/8 inches at point saw is attached. Tilting table is evenly balanced and easily moved. The adjustable saw guard will accommodate cordwood saws up to 30 inch diameter.

Frame No.	75A	76	76A
Balance Wheel	None	With	None
Mandrel Overall, Inches	35	51-1/8	51-1/8
Saw Table, Inches	12x27	12x40	12x40
Shipping Weight, Pounds	160	235	180
Without Saw, ★NET EACH	\$17.10	\$22.50	\$18.90
With 20 Inch Saw, ★NET	\$20.10	\$25.50	\$21.90
With 22 Inch Saw, ★NET	\$20.60	\$26.00	\$22.40
With 24 Inch Saw, ★NET	\$21.20	\$26.60	\$23.00
With 26 Inch Saw, ★NET	\$21.90	\$27.30	\$23.70
With 28 Inch Saw, ★NET	\$22.70	\$28.10	\$24.50
With 30 Inch Saw, ★NET	\$23.50	\$28.90	\$25.30

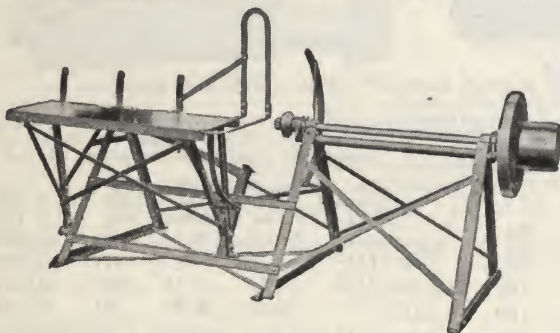


Fig. 4989

Frame No.	77	77A
Balance Wheel	With	None
Mandrel Overall, Inches	51-1/8	51-1/8
Saw Table, Inches	12x40	12x40
Shipping Weight, Pounds	290	235
Without Saw, ★NET EACH	\$25.40	\$21.80
With 20 Inch Saw, ★NET	\$28.40	\$24.80
With 22 Inch Saw, ★NET	\$28.90	\$25.30
With 24 Inch Saw, ★NET	\$29.50	\$25.90
With 26 Inch Saw, ★NET	\$30.20	\$26.60
With 28 Inch Saw, ★NET	\$31.00	\$27.40
With 30 Inch Saw, ★NET	\$31.80	\$28.20

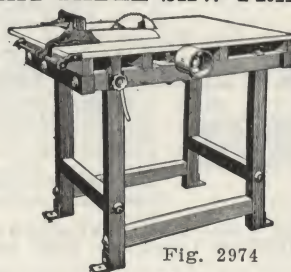
**FLAT TABLE SAW FRAME**

Fig. 2974

This combination cut-off and mitre saw outfit was designed especially for the every day needs of carpenters, farmers and contractors. The top of the saw being hinged at one end can be adjusted up or down, as desired. The table is provided with two adjustable guides—one for ripping, the other for cut-off or mitre work. Built to swing a 10 inch saw blade designed for either cut-off or ripping. The table top is 40x28 in. and is 38 in. high. It is equipped with a 4x4 in. pulley. A speed of 2000 R. P. M. is recommended for best results. Shipping weight, 165 lbs. Complete with saw, ¾ inch hole, saw blade is 16 gauge.

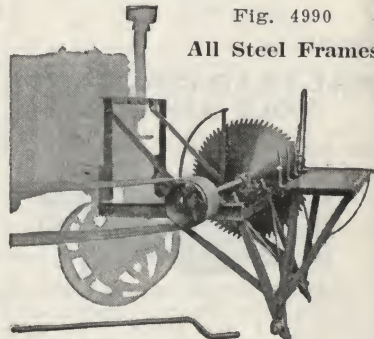
★ NET EACH, \$31.00

**FRONT END TRACTOR SAW FRAMES**

Bolts have lock washers to keep frames tight. With special long starting crank when necessary. Shipped knocked down, weight is approximately 250 pounds. 12 by 27 inch saw table. Pulley size; is 8 by 6 inches; models 60 and 62, 10 by 6 inches. Speed is 1130 to 1310 R.P.M. Outside diameter of saw mandrel is 1-7/16 inches and 1-3/8 inches where the saw is attached.

Fig. 4990

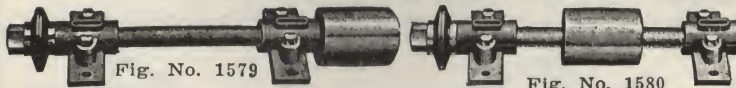
All Steel Frames



Frame No.	Model and Make of Tractor	Belt Feet	Length Inches	Belt Width Inches	Saw Mandrel Overall
57	Original Fordson	13	9	5	35
58	10-20 McCormick-Deering	15	2	5	34
59	Original McCormick-Deering Farmall	19	5	5	34
60	15-27 Model John Deere	13	7	5	36-1/4
61	15-30 and 22-36 McCormick-Deering	16	5	5	34
62	John Deere General Purpose Old Style	14	1	5	36-1/4
63	Improved Fordson	13	11	5	35
64	Case Model "C"	15	2	5	35
65	Case Model "L"	17	3	5	35
66	Single Front Wheel Hart-Parr Row Crop	17	5	5	35
67	F-20 & F-30 McCormick-Deering Farmall	20	5	5	35
68	F-12 McCormick-Deering Farmall	17	0	5	34
69	Double Front Wheel Hart-Parr Row Crop	19	2	5	35
70	18-28 Hart-Parr	16	6-1/2	5	35
Without Saw or Belt					★ NET EACH, \$27.00
30 Inch, 10 Gauge Cordwood Saw					★ NET EACH, \$6.40
Belt					★ NET EACH, \$7.25



CIRCULAR SAW MANDRELS



When ordering saw mandrels, send sketch and give distance from saw to end of mandrel, if the pulley is between the bearings. If the pulley is on the end of mandrel, give distance from saw to inside edge of pulley. Also whether the pulley is on the right or left hand side of mandrel when the saw is running towards you. Mandrels are made with pulley on right hand side with left hand thread unless otherwise ordered.

★ NET PRICES EACH

No.	Diam. of Pulley, Inches	Face of Pulley, Inches	Diam. of Flange, Inches	Wt., Lbs.	Length of Shaft, Inches	Diam. Shaft, Inches	Size of Hole in Saw, Inches	Complete ★ NET EACH
1	2½	3½	2½	18½	16	1½	1	\$ 2.75
2	3	4	3	22½	19	1½	1½	3.00
3	3½	4½	3½	32	21	1½	1½	3.75
4	4	5	4	38	24	1½	1½	4.90
5	4½	5½	4½	44½	26	1½	1½	5.30
6	5	6	5	46	28	1½	1½	5.50
7	5½	6½	5½	49	30	1½	1½	6.00
8	6	7	6	59	32	1½	1½	7.90
9	7	8	6	75	37	1½	1½	9.35
10	8	8	6	80	41	1½	1½	11.50
11	9	10	6	90	48	2½	2	15.00

SAW MANDREL SET

If 95 pound wheel is required, ADD \$2.50 ★ NET

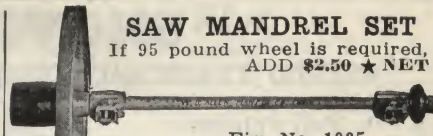


Fig. No. 1935  
Two-part flat babbitted boxes for bolting to flat surfaces.

★ NET OUTFIT, \$10.25

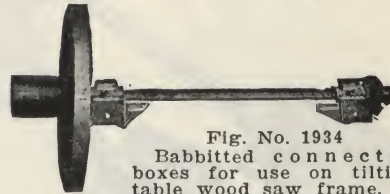


Fig. No. 1934

Babbitted connected boxes for use on tilting table wood saw frame.

★ NET OUTFIT, \$11.25

Complete mandrel set consists of 1 65 pound balance wheel; 1 pulley 5 inches diameter, 6 inch face; 1 mandrel 1½ inches diameter, 4 feet long, arbor turned to 1½ inches. 1 set boxes. NOTE—Unless otherwise specified, right hand mandrels with right hand thread will be furnished.

SOLID TOOTH CIRCULAR SAWS

All saws filed and set ready for use.

All saws of odd diameters not listed take list of next larger size.

No extra charge for saws one gauge thicker than list.

No extra charge for saws one to three gauges thinner than list; when more than three gauges thinner than list, add 5 per cent for each gauge.

Saws 48 inches and under, and 62 inches and over, in diameter, more than two gauges thinner than list, not warranted. Saws 50 inches to 60 inches in diameter thinner than 10 gauge not warranted.

Saws 42 inches or less in diameter beveled one gauge without extra charge; 44 inches or larger beveled two gauges without extra charge.

Saws hollow or concave ground, add for each gauge hollow or concave ground, double the list for beveling.

Saws for cutting Bone, Horn, or Ivory, add 50 per cent to the above list. When these saws are hollow or bevel ground, the 50 per cent advance is to apply only on the list of a straight gauge saw, and not on the extras for hollow or bevel grinding.

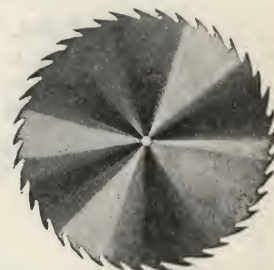


Fig. No. 1565

LIST PRICES EACH—Specify Whether Rip or Cross Cut Saw Is Wanted

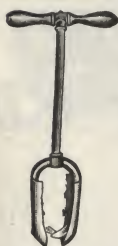
Diam., In.	Thickness Gauge	Size Hole Inches	List Each	Extra for Each Gauge Heavier	Beveling New Saws Per Gauge	Diam., In.	Thickness Gauge	Size Hole Inches	List Each	Extra for Each Gauge Heavier	Beveling New Saws Per Gauge
6	18	¾	\$ 3.30	\$0.07	\$0.25	40	9	2	\$ 62.00	\$ 3.40	\$2.95
8	18	¾	4.40	.10	.35	42	8	2	71.00	3.80	3.25
10	16	1	5.60	.20	.45	44	8	2	83.00	4.40	3.55
12	15	1	7.00	.30	.55	46	8	2	98.00	5.15	3.85
14	14	1½	8.50	.40	.65	48	8	2	112.00	5.90	4.15
16	14	1½	10.50	.60	.75	50	7	2	127.00	6.65	4.45
18	13	1½	12.50	.60	.90	52	7	2	142.00	7.40	4.80
20	13	1½	15.00	.75	1.05	54	7	2	157.00	8.80	5.15
22	12	1½	17.50	.90	1.20	56	7	2	180.00	10.25	5.50
24	11	1½	20.50	1.05	1.35	58	7	2	200.00	11.75	5.95
26	11	1½	24.00	1.25	1.55	60	6	2	224.00	13.25	6.40
28	10	1½	28.00	1.50	1.75	62	6	2	250.00	14.75	6.85
30	10	1½	32.00	1.75	1.95	64	6	2	280.00	17.60	7.35
32	10	1½	36.50	2.00	2.15	66	6	2	310.00	22.00	7.85
34	9	1½	41.00	2.25	2.35	68	5	2	350.00	26.40	8.45
36	9	1½	47.00	2.60	2.55	70	5	2	400.00	30.80	9.05
38	9	1½	54.00	3.00	2.75	72	5	2	450.00	35.20	9.65

DISCOUNT 1565R (Rip) 1565C (Cross Cut).....20% OFF

IMPROVED POST HOLE AND WELL AUGER

Fig. No. 3037

Has two high carbon steel blades, so formed as to both cut rapidly and hold a good quantity of earth. Steel tubing is used for the standard, ¾ inch for the 10 inch and smaller sizes, and 1 inch for the 12 inch size.



Size Inches	Length Feet	Wt., Lbs.	List Per Doz.
4	4	84	\$28.00
6	4	100	28.00
8	4	112	30.00
10	4	136	36.00
12	5½	267	96.00

DISCOUNT .....30% OFF

“HERCULES” POST HOLE DIGGERS

Fig. No. 3038

Blades 5x9 inches. Castings are bolted together from the outside, with bolt passing through the digger, making a strong and rigid tool. 4 ft. handles. Weight, 108 lbs. per dozen.



★ NET EACH, \$1.35

SEE NEXT PAGE FOR SHOVELS



# SHOVELS AND SPADES

## ALENCO PLAIN BACK SHOVELS

Full Polished  
or Black



Fig. No. 1747  
Square Point

Fig. No. 1748  
Round Point

Size No.	Blade Width Inches	Blade Length Inches	Approx. Wt., Lbs. Dozen	Black LIST DOZEN	Polished LIST DOZEN
<b>Square Point. Fig. 1747</b>					
2	9-5/8	11-3/4	54	\$19.00	\$22.20
<b>Round Point. Fig. 1748</b>					
2	9	11-3/4	54	\$19.00	\$22.20

## ALENCO PLAIN BACK SHOVELS Long Handles—Full Polished or Black

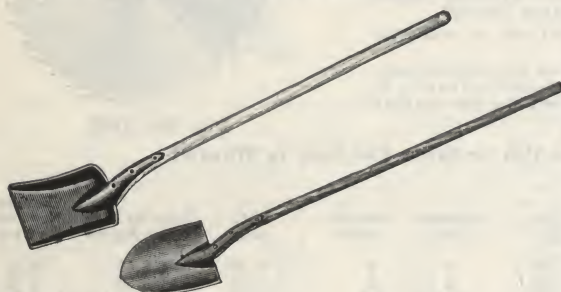


Fig. 1747A  
Square Point

Fig. 1748A  
Round Point

Size No.	Blade Width Inches	Blade Length Inches	Approx. Wt., Lbs. Dozen	Black LIST DOZEN	Polished LIST DOZEN
<b>Square Point. Fig. 1747A</b>					
2	9-5/8	11-3/4	58	\$19.00	\$22.20
<b>Round Point. Fig. 1748A</b>					
2	9-1/4	11-7/8	56	\$19.00	\$22.20

## ALENCO GARDEN SPADE Full Polished or Black

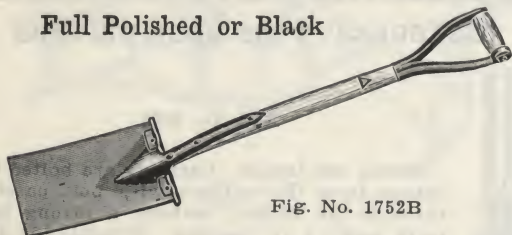


Fig. No. 1752B

Size No.	Blade Width Inches	Blade Length Inches	Approx. Wt., Lbs. Dozen	Black LIST DOZEN	Polished LIST DOZEN
2	7-1/4	12	56	\$19.00	\$22.20

**DISCOUNT**

**1 Each to 9 Dozen**  
**10 Dozen or More**

## ALENCO TRACK SHOVELS



Fig. No. 1747T

For railroads or contractors, stone quarries, sand and gravel pits, concrete, road building, ditching, etc. Black blades and polished straps, made of crucible steel of 70 to 80 per cent carbon, and great tensile strength, with carefully selected second growth Northern ash "D" handles.

Size No.	Blade Width Inches	Blade Length Inches	Approximate Wt., Lbs. Dozen	Black LIST DOZEN
2	9 5/8	11 3/4	56	\$19.00
3	10	12 1/2	62	\$19.80

## ALENCO FULL POLISHED SPADES

Fig. No. 1751  
Ditching Spades

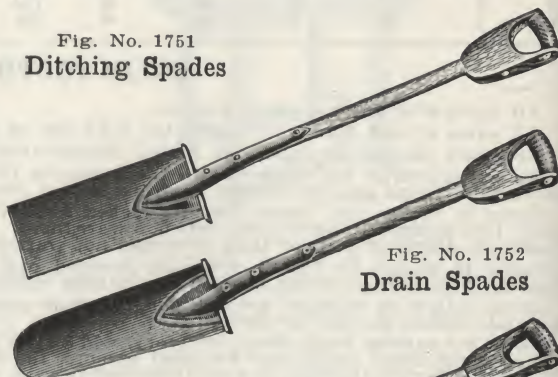


Fig. No. 1752  
Drain Spades

Fig. No. 1752A  
Post Spades

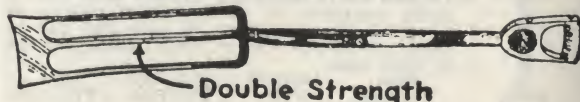
Length of Blade, Inches	Approx. Width at Top	Approximate Wt., Pounds Dozen	Polished LIST DOZEN
14	5 5/8	54	\$25.20
16	5 5/8	58	\$26.00
18	5 5/8	62	\$26.80
20	5 5/8	66	\$27.60

## ALENCO No. 7 BREAK-DOWN SCOOPS



Fig. 2880 Black .....LIST DOZEN, \$25.50

## DOUBLE STRENGTH TILE SPADE FOR SEWER, WATER AND DRAINAGE WORK



Double Strength

Size No.	Fig. 4535	622	620	618	422	420	418
Size, Inches		6x22	6x20	6x18	4x22	4x20	4x18
List Dozen		42.65	42.65	42.65	42.65	42.65	42.65

**25% OFF**  
**33 1/3% OFF**



## INGERSOLL SOLID SHANK SHOVELS

The solid shank type is made from one piece of steel in a solid blank form. Its manufacture is a series of heating, rolling and forming operations resulting in a solid blade with the socket extending from the center or thick portion of the blade. These solid shank shovels are very adaptable for hard and rough usage.

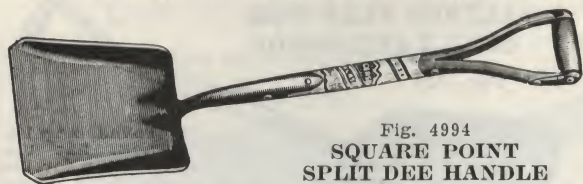


Fig. 4994  
SQUARE POINT  
SPLIT DEE HANDLE

Standard 14 by 15 gauge. Split Dee Handle. Imperial Brand. The handle is 27 inches out from the shoulder. Size 2. The blade is approximately 9-7/8 by 11-3/4 inches. Approximate weight, dozen, 56 pounds.  
Black .....LIST DOZEN, \$19.00  
Full Polished .....LIST DOZEN, \$22.20



Fig. 4996  
ROUND POINT  
SPLIT DEE HANDLE

The handle is 27 inches out from the shoulder. Imperial Brand. Standard 14 by 15 gauge. Size 2. The blade is approximately 9 by 12 inches. Approximate weight, dozen, 55 pounds.  
Black .....LIST DOZEN, \$19.00  
Full Polished .....LIST DOZEN, \$22.20



Fig. 4995  
SQUARE POINT  
KNOB LONG HANDLE

Standard 14 by 15 gauge. Knob long handle is 49 inches out from the shoulder. Imperial Brand. Size 2. The blade is approximately 9-7/8 by 11-3/4 inches. Approximate weight, dozen, 56 pounds.  
Black .....LIST DOZEN, \$19.00  
Full Polished .....LIST DOZEN, \$22.20



Fig. 4997  
ROUND POINT  
KNOB LONG HANDLE

The handle is 49 inches out from the shoulder. Standard 14 by 15 gauge. Imperial Brand. Size 2. The blade is approximately 9 by 12 inches. Approximate weight, dozen, 55 pounds.  
Black .....LIST DOZEN, \$19.00  
Full Polished .....LIST DOZEN, \$22.20

## INGERSOLL HOLLOW BACK SHOVELS

Made from one piece of steel. The socket which holds the handle is an integral part of the blade. The blade is rolled to the desired thickness by a special process. The method of turning a lip on the shoulder of the blade adds strength and long life, permitting light weight steel to be used. The shoulder is turned and the sockets are long.



Fig. 4998  
SQUARE POINT  
SPLIT DEE HANDLE

The handle is 27 inches out from the shoulder. Standard 15 gauge. Hi-Carbon Brand. Size 2. The blade is 9-1/2 by 11-3/4 inches. Weight, dozen, 52 pounds.  
Black .....LIST DOZEN, \$17.00



Fig. 5000  
ROUND POINT  
SPLIT DEE HANDLE

The handle is 27 inches out from the shoulder. Standard 15 gauge. Hi-Carbon Brand. Size 2. The blade is 9 by 12 inches. Weight, dozen, 50 pounds.  
Black .....LIST DOZEN, \$17.00



Fig. 4999  
SQUARE POINT  
KNOB LONG HANDLE

The handle is 48 inches out from the shoulder. Standard 15 gauge. Hi-Carbon Brand. Size 2. The blade is 9-1/2 by 11-3/4 inches. Weight, dozen, 52 pounds.  
Black .....LIST DOZEN, \$17.00



Fig. 5001  
ROUND POINT  
KNOB LONG HANDLE

The handle is 48 inches out from the shoulder. Standard 15 gauge. Hi-Carbon Brand. Size 2. The blade is 9 by 12 inches. Weight, dozen, 50 pounds.  
Black .....LIST DOZEN, \$17.00

## INGERSOLL TELEGRAPH SHOVELS AND SPOONS



Fig. 5004  
TELEGRAPH EASTERN  
PATTERN SPOONS

Welded plain back. Standard 13 gauge. Hi-Quality Brand. Extra for full polished, \$3.20 List Dozen.

		—BLACK, LIST DOZEN—		
Handle Length Feet	Blade Approximate Inches	Weight Dozen Pounds	9 Inch Straps	18 Inch Straps
6	8-3/4x10	102	\$43.00	\$45.00
8	8-3/4x10	127	\$50.00	\$52.00
10	8-3/4x10	142	\$57.00	\$59.00
12	8-3/4x10	157	\$64.00	\$66.00



Fig. 5002. Straight Handle  
Fig. 5003. Bent Handle  
TELEGRAPH SHOVELS

Welded plain back. Standard 13 gauge. Hi-Quality Brand. Extra for full polished, \$3.20 List Dozen.

		—BLACK, LIST DOZEN—		
Handle Length Feet	Blade Approximate Inches	Weight Dozen Pounds	9 Inch Straps	18 Inch Straps
6	9-1/4x12	87	\$43.00	\$45.00
8	9-1/4x12	97	\$50.00	\$52.00
10	9-1/4x12	117	\$57.00	\$59.00
12	9-1/4x12	127	\$64.00	\$66.00

**DISCOUNT** { 1 Each to 9 Dozen ..... 25% OFF  
ENTIRE PAGE { 10 Dozen or More ..... 33-1/3% OFF



# SCOOPS AND SHOVELS

## ALENCO HOLLOW BACK SCOOPS Eastern Pattern



Fig. No. 1754

Narrow mouth Eastern pattern coal and locomotive scoops.

No.	Dimensions, Inches		Approximate Weight, Lbs. per Dozen	Black LIST DOZEN	Polished LIST DOZEN
	Width	Length			
2	10-7/8	15	62	\$18.50	\$21.70
3	11-1/8	15-1/2	64	\$19.30	\$22.50
4	11-1/4	16	66	\$20.10	\$23.30
5	11-3/8	16-1/2	69	\$20.90	\$24.10
6	12-5/8	17	71	\$21.70	\$24.90
7	12-7/8	17-1/2	73	\$22.50	\$25.70

## Western Pattern



Fig. No. 1753

Wide mouth Western pattern grain scoops.

Size	Dimensions, Inches		Approximate Weight, Lbs. per Dozen	Black LIST DOZEN	Polished LIST DOZEN
	Width	Length			
6	13	16-1/2	72	\$21.70	\$24.90
8	13-1/2	17-1/2	79	\$22.50	\$25.70
10	14	18-1/2	85	\$23.30	\$26.50
12	14-1/2	19-1/2	87	\$24.10	\$27.30

## ALENCO HOLLOW BACK COAL AND ORE SHOVELS



Fig. No. 1750E

### "D" Handle

No. 2, "D" handle, square point, size 14 1/2 x 14 1/2. Approx. wt. per doz., 72 lbs.

Black List Dozen, \$18.30



Fig. No. 1750F

### Long Handle

No. 2, long handle, square point, size 14 1/2 x 14 1/2.

Black List Dozen, \$18.30

## ALENCO FLAT TOE COAL YARD SCOOP

Fig. 4536



An improved style, hollow back, flat toe, coal scoop made for use in coal yards. 11 inches wide extending to 13 1/2 inches by 17 inches long. "D" handle. Approximate weight dozen, 84 pounds.

Black List Doz., \$34.00

## INGERSOLL SPECIAL BACK STRAPPED COAL SCOOPS

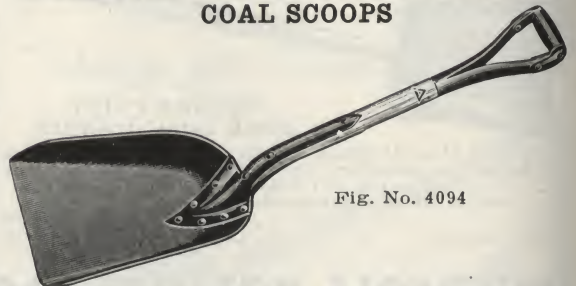


Fig. No. 4094

Size	Width, Inches	Length, Inches	Weight, Dozen, Pounds	BLACK LIST DOZEN
2	10 3/4	15	71	\$27.80
3	11 1/4	15 1/2	73	\$28.60
4	11 3/4	16	77	\$29.40
5	12	16 1/2	81	\$30.20
6	13 1/4	17	85	\$31.00
7	13 1/2	17 1/2	89	\$31.80

## ALENCO HOLLOW BACK FURNACE SCOOPS

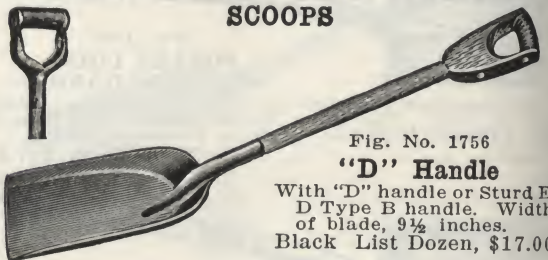


Fig. No. 1756

### "D" Handle

With "D" handle or Sturd E D Type B handle. Width of blade, 9 1/2 inches.

Black List Dozen, \$17.00



Fig. No. 1756A

### Long Handle

Long handle. Low left. Blade 9 1/2 inches wide.

Black List Dozen, \$17.00

## ALENCO ASH SCOOP

Bottom of scoop is nearly parallel with handle, permits reaching in ash pit a long distance and taking out a full scoop of ashes.



Fig. No. 3374

### Long Handle

No.	Handle In.	Size Inches	Approx. Black List	
			Wt., Doz.	List Dozen
4	54	11-1/2x17-3/4	75	\$19.30
8	54	13-1/2x18-1/4	81	\$22.50

**DISCOUNT** { 1 Each to 9 Dozen ..... 25% OFF  
10 Dozen or More ..... 33 1/3% OFF

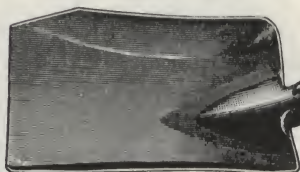


# SHOVELS AND FORKS

## ALENCO PLAIN BACK SHOVELS

Sewer or Brick Shovels

Fig. No. 2658



These shovels are made for exceptionally hard usage. The blades are very heavy and are cut from the best shovel steel. Handles are straight and free from flaws, accurately hung to give the proper leverage.

Size 2, blade 10-3/8 inches long, 9-1/4 inches wide, 9 inch strap, 51 pounds per dozen.

Black ..... LIST DOZEN, \$19.00  
Full Polished ..... LIST DOZEN, \$22.20

## ALENCO MOULDERS' SHOVELS

Plain Back Full Polished

Fig. No. 2659



Blades are perfectly flat and highly polished so that the sand sheds freely and quickly. Handles are aligned to the blade to give just the proper lift.

Size 2, blade 11 1/2 inches long, 10 inches wide, 55 pounds per dozen.

Polished  
LIST  
DOZEN  
\$22.20

Split handles or "D" handles furnished if desired.

## INGERSOLL PLAIN BACK SHOVEL

Ingersoll Special

Fig. 4093

The Ingersoll shovels are well known and require no extended introduction. We carry the genuine article for those who prefer them.

Size 2, plain back, "D" handle, square point, size 9 1/2 x 11 1/2 inches.

Black  
LIST  
DOZEN  
\$29.00



"D"  
Handle  
Square Point

## SNOW SHOVELS



Fig. No. 3513

For snow and general purposes. Blade 13 1/2 inches wide. 4-foot handle.

LIST DOZEN, \$8.50

Fig. No. 3514. Not illustrated. Curved blade made from .80 carbon spring steel; 18 inches wide by 15 inches deep, top flanged. Hardwood handle with steel "D".

LIST DOZEN, \$16.00

## COAL, COKE, AND STONE FORKS

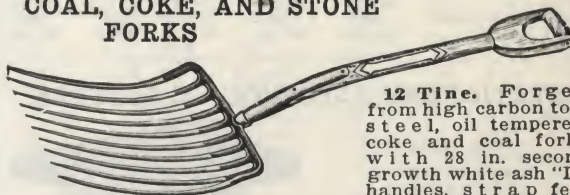


Fig. 2660

12 Tine. Forged from high carbon tool steel, oil tempered, coke and coal forks with 28 in. second growth white ash "D" handles, strap ferules. Stone forks with 30 in. handles.

Size No.	Style	Length Tines	Tines Spaced	LIST DOZEN
712	Coke	17 in.	1 1/4 in.	\$46.20
812	Coal	16 in.	1 in.	\$47.40
102S	Stone	13 1/2 in.	3/4 in.	\$47.40

## HANDY SNOW SHOVEL

Fig. 4992

14 by 18 inch with six corrugations. The blade is 18 gauge high carbon spring steel. Varnished hardwood handle, 1 by 1-1/4 inch full size. Strong, durable "D" handle. Attached to blade with a heavy reinforced shoe. Length overall, 48 inches. 6 in bundle. Weight dozen, 68 pounds.

LIST DOZEN, \$13.70



## HANDY SNOW PUSHER

Fig. 4993

Curved blade, made of 16 gauge high carbon spring steel. Varnished hardwood handle, 54 inches long, is securely fastened to the blade. 6 in a bundle.

Blade Inches	Weight Dozen Pounds	LIST DOZEN
11 by 18	66	\$10.45
11 by 24	84	\$13.00



## ICE SCRAPER

Fig. 4102

7 inch high carbon blade. 48 inch handle.

LIST DOZEN, \$6.00



## MORTAR HOES

Fig. No. 2850. No Holes.

Fig. No. 2850P. 2 Holes.

Fig. 2850. Plain, NO HOLES. Steel blade. 5-1/2 foot handle.

LIST DOZEN, \$18.80

Fig. 2850P. 2 punched holes for mortar mixing. Steel blade. 5-1/2 foot handle.

LIST DOZEN, \$20.00

**DISCOUNT** { 1 Each to 9 Dozen ..... 25% OFF  
ENTIRE PAGE { 10 Dozen or More ..... 33 1/3% OFF



# BASSICK TRUCK CASTERS

## BALL BEARING SWIVEL ALLOY TRUCK CASTERS

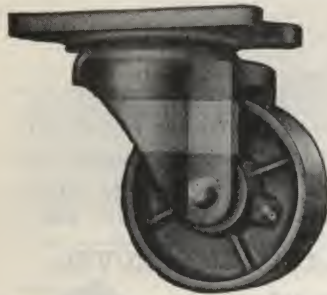


Fig. 5005  
Mfrs. 77 Series

Serviceable and efficient. Easy action. For all types of miscellaneous service. The remarkable full-floating bearing construction gives extremely easy swiveling. Constructed of special high tensile non-brittle alloy, having a tensile strength of 80,000 pounds to the square inch.

WHEEL, INCHES	3	4	5	6	8
Wheel Width, Inch	1-1/4	1-1/2	1-5/8	2	2-1/2
Overall Height	4-1/4	5-3/8	6-3/4	7-3/4	10
Top Plate Width	3-11/16	3-7/8	4-5/8	4-5/8	5-3/8
Top Plate Length	4-3/4	5-3/8	6-1/2	6-1/2	7-1/4
Weight Each, Lbs.	4	7	12-2/3	14-1/2	27

### SEMI-STEEL WHEELS—PLAIN BEARINGS

Mfrs. No.	3771	4771	5771	6771	.....
Capacity Set, Lbs.	800	1600	2000	2600	.....
LIST EACH	\$1.90	\$2.62	\$3.82	\$4.36	.....

### SEMI-STEEL WHEELS—ROLLER BEARINGS

Mfrs. No.	3771-2	4771-2	5771-2	6771-2	8771-2
Capacity Set, Lbs.	800	1600	2000	2600	6000
LIST EACH	\$2.80	\$3.52	\$4.82	\$5.36	\$11.00

### RUBBER COMPOSITION TREAD WHEELS—DUREX SELF-LUBRICATING BEARINGS

Mfrs. No.	3776	4776	5776	6776	.....
Capacity Set, Lbs.	400	700	900	1100	.....
LIST EACH	\$2.28	\$3.28	\$4.92	\$5.66	.....

### RUBBER TREAD WHEELS—ROLLER BEARINGS

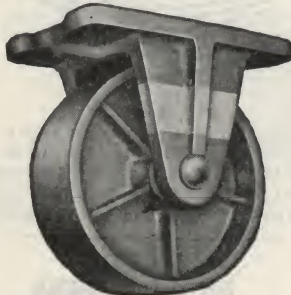
Mfrs. No.	3776-2	4776-2	5776-2	6776-2	8776-2
Capacity Set, Lbs.	400	700	900	1100	2500
LIST EACH	\$3.08	\$4.18	\$5.92	\$6.66	\$12.80

## STATIONARY ALLOY TRUCK CASTERS

Fig. 5006

Mfrs. 78 Series

For medium duty. The single unit frame has been scientifically designed, trussed and reinforced to withstand extreme shock and rough usage. These stationary casters match the 77 series for height and bolt hole spacing, except the 6 inch size marked ★.



WHEEL, INCHES	4	5	★6	H6	8
Wheel Width, Inch	1-1/2	1-5/8	2	2	2-1/2
Overall Height	4-1/4	5-3/8	6-3/4	7-3/4	10
Top Plate Width	3-1/2	3-7/8	4-5/8	4-5/8	5-3/8
Top Plate Length	4-3/4	5-3/8	6-1/2	6-1/2	7-1/4
Weight Each, Lbs.	4-1/8	6-2/3	10-3/4	12-1/2	21

### SEMI-STEEL WHEELS—PLAIN BEARINGS

Mfrs. No.	4781	5781	6781	H6781	.....
Capacity Set, Lbs.	1800	2400	3000	3000	.....
LIST EACH	\$1.16	\$1.52	\$2.26	\$2.46	.....

### SEMI-STEEL WHEELS—ROLLER BEARINGS

Mfrs. No.	4781-2	5781-2	6781-2	H6781-2	8781-2
Capacity Set, Lbs.	1800	2400	3000	3000	6000
LIST EACH	\$2.06	\$2.52	\$3.26	\$3.46	\$9.00

### RUBBER COMPOSITION TREAD WHEELS—DUREX SELF-LUBRICATING BEARINGS

Mfrs. No.	4786	5786	6786	H6786	.....
Capacity Set, Lbs.	700	900	1100	1100	.....
LIST EACH	\$1.82	\$2.70	\$3.60	\$3.80	.....

### RUBBER TREAD WHEELS—ROLLER BEARINGS

Mfrs. No.	4786-2	5786-2	6786-2	H6786-2	8786-2
Capacity Set, Lbs.	700	900	1100	1100	2500
LIST EACH	\$2.72	\$3.70	\$4.60	\$4.80	\$10.50

**DISCOUNT**

## BALL BEARING SWIVEL STEEL TRUCK CASTERS

Fig. 5007

Mfrs. 61 Series

The resilience of steel prevents breakage under rough and severe service. The improved ball race construction gives these casters a lower overall height than any others with equal size wheels and allows the use of a shorter, stronger king pin (a vital point). Spanner bushing axle construction.



SIZE, INCHES	2	2 1/2	3	4	5	6
Overall Height	2-1/2	3-1/4	3-7/8	5	6-1/4	7-1/4
Top Plate Width	1-7/8	2-3/4	3-1/8	4	5-1/2	5-1/2
Top Plate Length	2-5/8	3-3/4	4-1/8	5	6-1/2	6-1/2
Weight Each, Lbs.	3/4	1-1/2	1-3/4	3-3/4	7-1/2	8-1/4

### SEMI-STEEL WHEELS—PLAIN BEARINGS

Mfrs. No.	9611	2611	3611	4611	5611	6611
Capacity Set, Lbs.	500	700	800	1200	1600	2000
LIST EACH	\$0.25	\$0.46	\$0.58	\$1.10	\$2.28	\$2.74

### RUBBER COMPOSITION TREAD WHEELS—DUREX SELF-LUBRICATING BEARINGS

Mfrs. No.	9616	2616	3616	4616	5616	6616
Capacity Set, Lbs.	250	300	400	600	800	1100
LIST EACH	\$0.46	\$0.88	\$1.16	\$2.06	\$3.64	\$4.44

## STATIONARY STEEL TRUCK CASTERS

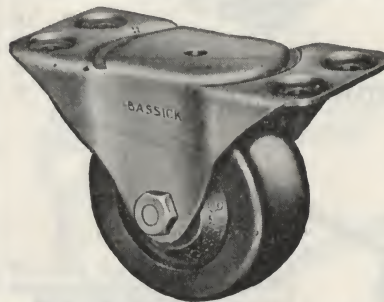


Fig. 5008

Mfrs. 38 Series

Reliable and dependable. The heavy gauge steel horn is formed with an embossed structural shape which gives extreme strength. Spanner bushing construction.

SIZE, INCHES	2 1/2	3	4	4 1/2	5	6
Overall Height	2-7/8	3-1/2	4-5/8	5-1/4	5-3/4	6-3/4
Top Plate, Width	2-1/4	2-1/2	3-1/8	3-3/8	3-3/8	4-3/8
Top Plate, Length	4-1/2	5	6-1/4	6-3/4	7-1/4	8-1/2
Weight Each, Lbs.	1	1-3/4	2-1/2	4	4-1/2	7-3/4

### SEMI-STEEL WHEELS—PLAIN BEARINGS

Mfrs. No.	2381	3381	4381	45381	5381	6381
Capacity Set, Lbs.	850	1000	1500	1750	2000	3000
LIST EACH	\$0.35	\$0.46	\$0.72	\$1.12	\$1.22	\$1.78

### RUBBER COMPOSITION TREAD WHEELS—DUREX SELF-LUBRICATING BEARINGS

Mfrs. No.	2386	3386	4386	45386	5386	6386
Capacity Set, Lbs.	300	400	700	750	800	1100
LIST EACH	\$0.74	\$0.96	\$1.60	\$2.16	\$2.40	\$3.44

## OFFICE CHAIR CASTERS

Ball bearing grip neck, 3/8 inch diameter. Full floating. The highest quality, easiest swiveling office chair caster ever developed. Oxidized copper finish. Self-lubricating wheel bearings.

Mfrs. No.	Wheel Diameter Inches	Weight Set Ounces	LIST SET
-----------	-----------------------	-------------------	----------

### SOLID TREAD WHEELS

7699	1-5/8	19	\$1.50
9699	2	23	\$2.00

### RUBBER TREAD WHEELS

7696	1-5/8	19	\$1.50
9696	2	23	\$2.00

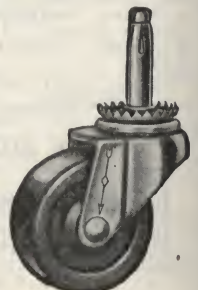


Fig. 5009

**33-1/3% OFF**



# ROL-EZY TRUCK CASTERS AND WHEELS

## ROL-EZY "CHIEF" CASTERS



Figs. 3121, 3268HP

A patented, double wheel caster in which the load weight is carried by a hardened, machined steel stem to a socket swivel bearing between the wheels. The easiest swiveling, lightest running and strongest caster on the market. M—Denotes malleable plate and brackets.

### Fig. 3121 Standard—Plain Bearing

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Hgt. Ins.	List Each Iron Wheels	Rigid No. to Match
250	2½ x 1¼	2½ x 4	1½ x 3½	3½	\$ .85	25
300	3 x 1½	3 x 4½	1½ x 3½	4¼	1.05	10
350	3½ x 1¾	3½ x 5	2½ x 4½	5½	1.65	35
400M	4 x 1½	4 x 6¼	2½ x 4½	6	2.90	55
500M	5 x 1½	4½ x 7	3½ x 5½	7¾	4.95	70L
600M	6 x 1½	5½ x 7¾	3½ x 6	8¾	7.40	80L
700M	7 x 1½	5½ x 7¾	3½ x 6	9¾	8.75	80 H

### Fig. 3268HP Heavy—Plain Bearing

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Hgt. Ins.	List Each Iron Wheels	Rigid No. to Match
501	5 x 1½	4½ x 7	3½ x 5½	7¾	\$ 7.40	70L
601	6 x 2	5½ x 7¾	3½ x 6	8¾	11.10	80L
701	7 x 2	5½ x 7¾	3½ x 6	9¾	12.35	80 H

### Fig. 3268HH Heavy—Hyatt Roller Bearings

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Hgt. Ins.	List Each Iron Wheels	Rigid No. to Match
0400M	4 x 1½	4½ x 6¼	2½ x 4½	6	\$ 8.30	055
0500M	5 x 1½	4½ x 7	3½ x 5½	7¾	9.25	070L
0501	5 x 1½	4½ x 7	3½ x 5½	7¾	12.95	070L
0601	6 x 2	5½ x 7¾	3½ x 6	8¾	15.70	080L
0701	7 x 2	5½ x 7¾	3½ x 6	9¾	17.25	080 H

## ROL-EZY STATIONARY CASTERS



Fig. 3118

Figs. 4179-4180

Complete range of sizes and weights to match ROL-EZY "Chief" and ROL-EZY Single-Wheel Swivel Casters.

### Fig. 3118 Standard—Plain Bearings

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Height Inches	List Each with Iron Wheels
6	2½ x 1¼	3 x 4¼	1½ x 3½	2¾	\$ .40
8	3 x 1	3 x 4¾	1 x 3½	3½	.55
10	3½ x 1	3½ x 4¾	1½ x 3½	4¼	.70
11	4 x 1½	3½ x 5½	1½ x 4¼	4¾	1.00
12	5½ x 1½	3½ x 7	1½ x 5½	5½	1.50
12S	5 x 1½	3½ x 7	1½ x 5½	5½	1.40
14	5½ x 1¾	4½ x 7	1½ x 5½	6	1.95
16	7 x 1¾	4½ x 8½	2½ x 6½	7½	2.75
16S	6 x 1¾	4½ x 8½	2½ x 6½	7	2.70

### Fig. 4179 Standard—Plain Bearings

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Height Inches	List Each with Iron Wheels
25	3 x 1	2½ x 4	1½ x 3½	3½	\$ .65
35	4½ x 1½	3½ x 4½	2½ x 3½	5¼	1.15
55	5 x 1½	7½ x 3½	6¼ x 2½	6	2.95
70L	7 x 2	7½ x 3½	6¼ x 2½	7¾	4.40
80L	8 x 2½	8¼ x 5½	7½ x 4	8½	8.40
80H	8 x 2½	8¼ x 5½	7½ x 4	9¾	9.40

### Fig. 4180 with Hyatt Roller Bearings

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Height Inches	List Each with Iron Wheels
055	5 x 1½	7½ x 3½	6¼ x 2½	6	\$ 7.15
070L	7 x 2	7½ x 3½	6¼ x 2½	7¾	9.25
080L	8 x 2½	8¼ x 5½	7½ x 4	8½	15.20
080H	8 x 2½	8¼ x 5½	7½ x 4	9¾	17.30

## ROL-EZY SINGLE WHEEL CASTERS



Fig. 4178



Fig. 3120

### Fig. 4178—Ball Bearing Plate

Constructed to give all the service possible in a single wheel caster. Designed to prevent dust and dirt from accumulating in the ball race, thus insuring long bearing life and easy swiveling. M—Denotes Malleable Plates and Brackets. B—Denotes Ball Bearing Plate.

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Hgt. Ins.	List Each Iron Wheels	Rigid No. to Match
B88	2½ x 1¼	2½ x 4	1½ x 3½	3½	\$ .80	25
B90	3 x 1½	3½ x 4½	2½ x 3½	4¼	1.10	10
B90½	3 x 1½	3½ x 4½	2½ x 3½	4¼	1.15	10
B91	3½ x 1½	3½ x 4½	2½ x 3½	5	1.45	34
B90L	4 x 1½	3½ x 4½	2½ x 3½	5½	1.50	35
B91L	5 x 1½	4½ x 5½	2½ x 4½	6½	2.60	
BM92	4 x 2	4½ x 5½	3½ x 4½	6	3.25	55
BM92W	4 x 2½	4½ x 5½	3½ x 4½	6	3.25	55
BM93	5 x 1½	4½ x 5½	3½ x 4½	6½	3.90	60

### Fig. 3120—Roller Bearing Plate

Low priced. Designed for economical service and hard knocks.

Size No.	Size of Wheels Inches	Size of Plate Inches	Hole Centers Inches	Total Hgt. Ins.	List Each Iron Wheels	Rigid No. to Match
88	2½ x 1¼	2½ x 4	1½ x 3½	3½	\$ .55	25
90	3 x 1½	3½ x 4½	2½ x 3½	4¼	.85	10
90L	4 x 1½	3½ x 4½	2½ x 3½	5½	1.00	12S
90S	4½ x 1½	3½ x 4½	2½ x 3½	5½	1.30	12
91	3½ x 1½	3½ x 4½	2½ x 3½	5	1.30	34
92	4 x 2½	4½ x 5½	3½ x 4½	6	2.40	55
93	5 x 2½	4½ x 5½	3½ x 4½	7	3.45	16S
93L	6 x 2½	5½ x 7	3½ x 5½	8¼	4.95	.....

## ROL-EZY TRUCK WHEELS

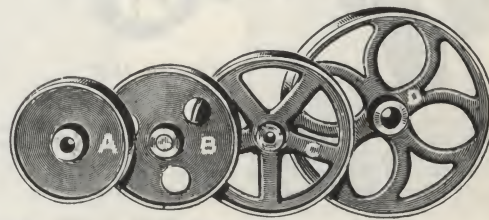


Fig. 3295

Style	Wheel Size Inches	Length of Hub Inches	Axle Diameter Inches	List Each Plain Bearing	List Each Hyatt Type Bearing
B	4 x 1½	1¾	¾	\$ .70	.....
A	4 x 2	2¼	1	.75	.....
A	5 x 1½	2¼	1	1.35	\$ 3.33
B	5 x 2½	2¾	1½	1.65	.....
A	5 x 1½	1¾	¾	1.35	.....
A	6 x 2	2¼	1	1.95	4.20
B	6 x 2½	2¾	1½	1.65	.....
B	7 x 1¾	2	1½	1.40	.....
A	7 x 2	2¼	1	2.65	4.94
B	8 x 1½	1¾	¾	1.65	.....
A	8 x 2½	3¼	1	3.80	7.40
D	9 x 1½	2	1¼	2.45	.....
A	10 x 2½	3¾	1	4.70	12.09
B	12 x 2	2¾	1	5.45	.....
C	14 x 2½	3½	1	6.90	.....
D	15½ x 2½	3	1	8.30	.....
D	18 x 2	3¼	1	8.10	.....
D	18 x 2½	3½	1¼	11.40	14.80
D	18 x 3½	4	1¼		

**DISCOUNT**

**40% OFF**



# THE REYNOLDS IMPROVED TRUCK

For Mill, Factory and Warehouse



Fig. No. 1767

Substantially constructed with heavy maple platform. Ball bearing casters and large wheels with wide tread. Nos. 9 to 23 are intended for very heavy work.

No.	Size of Platform Feet*	Wheels Inches	Casters Inches	Height of Top of Platform, Inches	Capacity, Lbs.	Weight, Lbs.	List Each
0	2 x 3	12x2	6x1 1/4	14	1,200	125	\$24.00
1	2 x 4	12x2	6x1 1/4	14	1,200	152	25.00
3	2 1/2 x 4	12x2	6x1 1/4	14	1,200	165	26.10
4	2 x 5	12x2	6x1 1/4	14	1,200	161	26.10
5	3 x 4	12x2	6x1 1/4	14	1,200	173	27.00
6	2 1/2 x 5	12x2	6x1 1/4	14	1,200	175	27.00
8	3 x 5	12x2	6x1 1/4	14	1,200	192	29.25
9	2 x 4	18x2 1/4	9x1 1/2	19	3,000	217	30.00
11	2 1/2 x 4	18x2 1/4	9x1 1/2	19	3,000	229	31.50
13	2 1/2 x 4 1/4	18x2 1/4	9x1 1/2	19	3,000	237	32.25
15	3 x 4	18x2 1/4	9x1 1/2	19	3,000	246	33.00
16	2 1/2 x 5	18x2 1/4	9x1 1/2	19	3,000	243	33.00
18	2 x 5	18x2 1/4	9x1 1/2	19	3,000	230	32.25
19	2 x 6	18x2 1/4	9x1 1/2	19	3,000	240	33.00
20	2 1/2 x 6	18x2 1/4	9x1 1/2	19	3,000	255	34.50
21	3 x 5	18x2 1/4	9x1 1/2	19	3,000	255	35.25
22	3 x 6	18x2 1/4	9x1 1/2	19	3,000	270	36.00
23	3 x 8	18x2 1/4	9x1 1/2	19	3,000	310	40.00

DISCOUNT ..... 12% OFF

\* The trucks are about 4 inches longer over all.

# REYNOLDS FREIGHT HOUSE TRUCK



Fig. No. 3522

Platform, 3 by 6 feet; 19 inches high. Capacity, 6,000 pounds. 18 by 3 1/2 inch roller bearing wheels. 9 by 2 1/2 inch patent ball bearing casters. Weight, 370 pounds. Oiled and varnished. The front wheels being casters permit the truck to turn in its own length.

★ NET EACH, \$35.00

# TIMBER DOLLIES

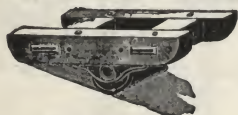


Fig. No. 3127

For moving heavy timbers. Hardwood frame, cast iron roller, with wrought axle passing entirely through roller. Forms skid roller when turned bottom up.

★ NET PRICES

No.	Frame, In.	Roller, In.	Wt., Lbs.	Net Each
3	18 x 24	3x12	49	\$6.60
1	16 x 19	6x10	58	\$7.00
2	19 1/2 x 26	6x12	70	\$7.40

# BOX TRUCKS



Fig. No. 3128

For handling large boxes or bales. Strong and well made. Nos. 1 and 2 with frames 2 1/2 x 4 in.; No. 3, 3 1/2 x 4 in. Axles turned and wheels bored.

★ NET PRICES

No.	Size, In.	Wheels, In.	Wt., Lbs.	Net Each
1	16x18	3 1/2	22	\$4.20
2	16x24	4	32	4.80
3	18x26	4 1/2	38	5.20

# PLATFORM TRUCKS



Fig. No. 1769

No.	Size of Platform	Height to Top of Platform, Inches	Diam. of Wheels, Inches	Weight Each, Lbs.	Iron Wheel ★ NET EACH
80	2 ft. x 3 ft.	12	7 1/2	80	\$15.00
82	2 ft. 4 in. x 3 ft. 4 in.	12	7 1/2	111	\$16.65
83	2 ft. 6 in. x 3 ft. 6 in.	12	7 1/2	114	\$17.95
84	3 ft. x 4 ft.	13	8 1/2	150	\$20.15

# FURNITURE OR FACTORY TRUCKS

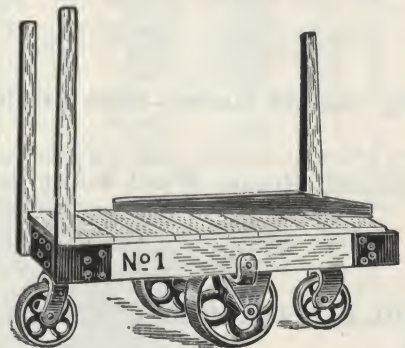


Fig. No. 3191

Made of hardwood for heavy work in woodworking plants, also suitable for bulky goods. 2 in. hardwood sides and ends. 1 in. hardwood platform. Pressed steel stake sockets, complete with adjustable stakes. Axles with turned bearings. All with 7 in. casters.

No.	Platform, In. Wide	Platform, In. Long	Wheel Diam. In.	★ Net Each
1	2	4	12	\$13.50
2	2	4	16	15.00
3	3	5	12	16.00
4	3	5	16	17.50
5	2	5	12	14.75
6	2	5	16	16.25

# INDUSTRIAL TRUCK

Flat top. With handle. All steel. Welded. Platform is 18 1/2 inches high. Capacity, 1,500 pounds. 4 inch semi-steel casters. Steel forks. Ideal for inter-department use.

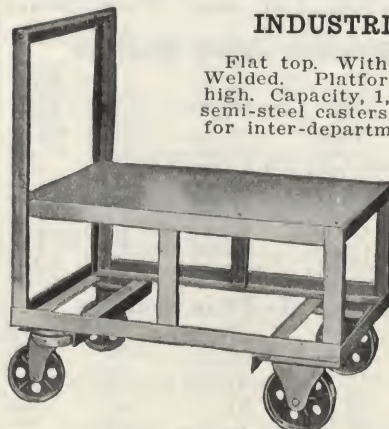


Fig. No. 4001

Size No.	Width Inches	Length Inches	Plate Gauge	Weight Pounds	★ NET EACH
121	20	30	16	73	\$20.95
122	20	36	16	75	\$21.30
123	24	40	16	77	\$22.50
124	24	48	16	82	\$23.40



**LIFT TRUCKS**

Fig. 5010

Lift trucks eliminate unnecessary handling of materials. The product to be handled is loaded on platforms or racks. This truck is rolled under the platforms or racks and with one downward sweep of the handle the platform and its load is raised off the floor. The truck then pulls the load wherever he desires. When he is ready to deposit the load he steps on the release pedal and the platform with its load gently lowers to the floor, cushioned by the hydraulic check placed directly underneath the load.

Model No.	Length Carrying Frame Inches	Height Lowered Inches	★NET EACH
<b>Model J. 18 inches wide, 1-5/8 inch lift. Capacity 2500 pounds</b>			
J630	30	6	\$98.00
J636	36	6	\$103.00
J648	48	6	\$113.00
J736	36	7	\$108.00
J748	48	7	\$118.00
J936	36	9	\$113.00
J948	48	9	\$123.00
<b>Model R. 18 inches wide, 1-5/8 inch lift. Capacity 3500 pounds</b>			
R636	36	6	\$120.00
R648	48	6	\$130.00
R654	54	6	\$135.00
R736	36	7	\$126.00
R748	48	7	\$136.00
R936	36	9	\$132.00
R948	48	9	\$142.00

—Truck Will Handle Platforms or Racks—

Model No.	Minimum	Maximum
J630 = .....	24 by 24	36 by 42
J636 = R636	24 by 30	36 by 48
J648 = R648	24 by 36	36 by 60
..... = R654	24 by 48	36 by 66
J736 = R736	24 by 30	36 by 48
J748 = R748	24 by 36	36 by 60
J936 = R936	24 by 30	36 by 48
J948 = R948	24 by 36	36 by 60

**EXTRAS.** A lift of 2-1/4 or 2-5/8 inches can be furnished for \$5.00 ★ NET additional. The following can be furnished, prices on request: Longer carrying frame; Carrying frame 11 inches high when lowered; Other sizes; Capacities up to 10,000 pounds; and Models for specific purposes.

**STEEL LEG PLATFORMS**

Fig. 5011

Made with hardwood top boards of select, clear lumber. Manganese steel angles, 50% greater in strength than mild steel.

**SPECIFY:** Quantity, Width, Length, Underneath clearance (1/2 inch more than platform height when lowered), and capacity pounds. **PRICES ON REQUEST.**

**CLARKS UNITRUK**

Strong, yet light. All steel construction, frames and cross members are of tubular steel, correct in thickness, and electrically welded into one perfectly balanced unit. The lips that carry the brunt of the load are made of 3/8 inch steel plate, they will not break—under the heaviest strain.



Fig. 5014

**Fig. 5014.** Mfrs. GS400 Series. For general purposes. Will handle barrels, bales, boxes and bags with equal facility. Double straps the full length (48 inch size has 1 strap) with two additional short straps to give added strength at the point of the greatest stress. Tubular cross members are slightly concave.

**Fig. 5015.** Mfrs. G200 Series. For general purposes. Five tubular cross members with full length single horizontal strap, 2 straps on the 60 inch size.

Mfrs. No.	Length at Handles Inches	Width Overall Inches	Wheel Size Inches	Depth at Lip Inches	Approximate Weight Pounds	LIST Semi-steel Plain Wheels	LIST Hyatt Roller Bearings	LIST Rubber Tires Hyatt Bearings
GS-448	48	20	7	5	67	\$17.00	\$21.00	\$29.96
GS-450	50	20-1/2	8	5	77	\$18.75	\$22.75	\$34.75
GS-452	52	23	9	5	82	\$21.00	\$26.00	\$38.60
GS-454	54	23	9	5	92	\$22.00	\$27.00	\$39.60
GS-456	56	23	10	5-1/2	103	\$23.00	\$28.00	\$42.00
GS-460	60	24	11	6	111	\$26.50	\$31.50	\$47.50
G-248	48	20	7	5	66	\$16.00	\$20.00	\$28.96
G-250	50	21-1/2	8	5	74	\$17.75	\$21.75	\$33.75
G-252	52	23	9	5	80	\$20.00	\$25.00	\$37.60
G-254	54	23	9	5	90	\$21.00	\$26.00	\$38.60
G-256	56	23	10	5-1/2	102	\$22.00	\$27.00	\$41.00
G-260	60	24	11	6	110	\$25.00	\$30.00	\$46.00



**Fig. 5012.** Bale and Barrel Trucks. HD 158 to B 160. For heavy duty. Five tubular steel cross bars and strap. 18 inch sturdy legs braced horizontally and vertically on the bale trucks only. Steel plate lip.

**Fig. 5013.** Mfrs. K-140 to K-360. For quick, easy movement of kegs, barrels, boxes, etc. Three tubular cross members, two concave on the 40, 44 and 48 inch length trucks. Four tubular cross members on the 52, 54, 56 and 60 inch sizes.

Mfrs. No.	Type Truck	Length at Handles Inches	Width Overall Inches	Wheel Size Inches	Depth at Lip Inches	Approximate Weight Pounds	LIST Semi-steel Plain Wheels	LIST Hyatt Roller Bearings	LIST Rubber Tires Hyatt Bearings
HD-158	Bale	58	24	11	5	111	\$29.00	\$34.50	\$50.00
HD-160	Bale	60	24	11	5	115	\$30.00	\$35.50	\$51.00
B-152	Barrel	52	23	9	5	74	\$20.00	\$25.00	\$37.60
B-156	Barrel	56	24	10	5	90	\$22.00	\$27.00	\$41.00
B-160	Barrel	60	24	11	5-1/2	98	\$25.00	\$30.00	\$46.00
K-140	Barrel	40	18-1/2	6	5	30	\$14.00	\$18.00	\$26.72
K-244	Barrel	44	21	7	6	40	\$15.90	\$19.90	\$28.86
K-348	Barrel	48	21	7	6	43	\$16.50	\$20.50	\$29.46
K-352	Barrel	52	22	9	6	60	\$17.75	\$22.75	\$35.35
K-354	Barrel	54	22-1/2	9	6	63	\$18.50	\$23.50	\$36.10
K-356	Barrel	56	23	10	6	88	\$21.00	\$26.00	\$40.00
K-360	Barrel	60	24	11	6	97	\$24.50	\$29.50	\$45.50

**DISCOUNT 15% OFF**

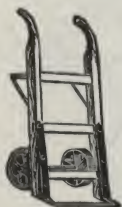


## STEEL NOSE STORE AND WAREHOUSE TRUCKS

### Western Pattern

All Our Trucks Have Steel Noses, Forged Axles and Turned Bearings

Firmly bolted together, steam bent handles



Half Bound  
Fig. No. 1772



Full Bound  
Fig. No. 1773

### ★ NET PRICES EACH

No.	Description	Wt., Lbs.	Length of Handles	Diam. of Wheels	Width, Inches	★ NET EACH
0W	Half Bound	32	42	6	18	\$6.20
1W	Half Bound	43	48	7½	19	\$6.85
2W	Half Bound	60	52	8½	20	\$8.20
3W	Half Bound	84	56	9½	22	\$10.70
4W	Half Bound	110	62	10½	24	\$12.15
21W	Full Bound	50	48	7½	19	\$7.30
22W	Full Bound	68	52	8½	20	\$8.85
23W	Full Bound	87	56	9½	22	\$11.45
24W	Full Bound	125	60	10½	24	\$12.48

### No. 50 BAG TRUCK With Stamped Steel Nose



Fig. No. 1768

The ordinary bag truck of this style is made with nose of cast iron; as they must be light the noses are very easily broken, being often broken in shipping.

The noses of these trucks are stamped from a solid piece of steel, making the nose the strongest part of the truck.

Iron wheels. Turned bearings. Length, 42 inches; width at nose, 11¼ inches; diameter of wheels, 6 inches; weight each, 19 pounds.

★ NET EACH, \$4.10

### BARREL TRUCK

Fig. 3640

Bent iron cross-bars. Steel nose. Firmly bolted together. Forged axles with turned bearings. Full bound.

Mfrs. 72W. Weighs 70 pounds. 52 inch handle. Wheels, 8½ inch diameter. Nose is 20 inches wide.

★ NET EACH, \$8.90

Mfrs. 73W. Weighs 90 pounds. 56 inch handle. Wheels, 9½ inch diameter. Nose is 22 inches wide.

★ NET EACH, \$12.15



### GARDEN BARROW



A light, strong, durable barrow. Well made of select stock, handsomely painted a brilliant red and varnished. Packs very flat and is easily set up. Each package contains one complete barrow. Length of handles, 58 inches; body, 27 inches; width of body, wheel end, 17 inches; handle end, 23½ inches; depth, 12 inches. Weight, 45 pounds.

Fig. 2657.....★ NET EACH, \$5.85

A special light, low priced barrow. Inside measurement of box, 17 by 27 inches, 11 inches deep. Handles are 60 inches long. Blue finish. 15 inch steel wheel. Weight, 35 pounds.

Fig. 4444.....★ NET EACH, \$4.55

### GOLF BARROW



Fig. 5016

For use on golf courses, cemeteries, parks, etc. The wheel has a crowned face, four inches wide, which allows it to be used on the lawns or greens without the use of planks or boards. The shoes on the legs are also extra wide. Capacity, 3-1/2 cubic feet. Weight, 70 pounds.

★ NET EACH, \$8.45

### HAND CART

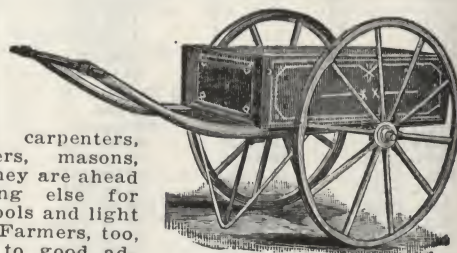


Fig. No. 2064

Painters, carpenters, bill posters, masons, etc., find they are ahead of anything else for carrying tools and light material. Farmers, too, use them to good advantage. Handles on cart No. 0 are not bent. Carts are shipped with 1 inch tread wood wheels unless otherwise ordered.

No.	Diam. of Wheels, In.	Diam. of Axle, In.	Size of Box Outside, In.	Depth of Box, In.	Weight, Lbs.	1-in. Tread Wheels ★ Net Each
0	42	1	48x28	10	100	\$16.50
1	36	¾	40x23	10	90	\$15.00
2	30	¾	32x20	9	80	\$13.50

### SOLID STEEL SCRAPERS

Made from heavy steel. The swivel works easily, and allows the bowl to adjust itself to any unevenness in the ground without losing off dirt. Bowl is long, deep, compact, rigid, and has large wearing surface. Fills, dumps, and handles easily. Runners, ½ by 1½ inch steel.

No.	Size, Inches	Capacity Cu. Ft.	Weight, Lbs.	★ NET EACH
1L	33½x32x11½	7	98	\$9.10
2L	31½x29x11½	5	88	\$8.85
3L	32 x25x10¾	3	78	\$8.60

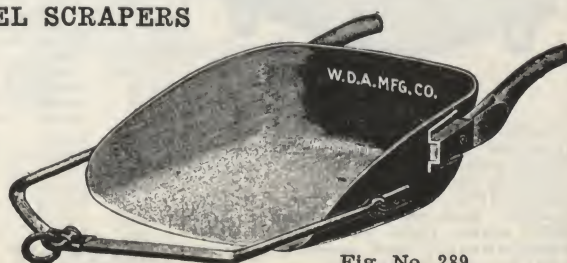


Fig. No. 289



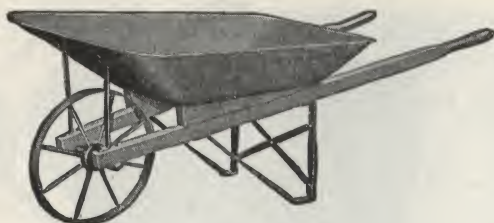
**STEEL TRAY WHEELBARROW**

Fig. No. 3944

A real, sturdy, steel tray wheelbarrow with a tray that will hold a REAL LOAD, and at a price little higher than you would pay for a common wood tray barrow. Legs and braces of steel. Tray is 26 by 34 inches, pressed out of a single sheet of steel, with a 5/16 inch rod rolled around the top.

★ NET EACH, \$3.50

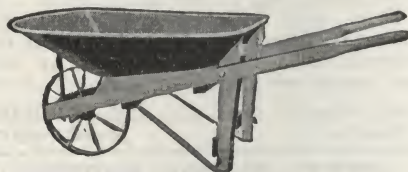
**STEEL TRAY BARROWS**

Fig. No. 1764

The trays are made of one piece of 16 gauge sheet steel pressed into shape with a 5/16-inch steel rod rolled into the edge. Trays are 29x36 in. at top, 8 1/2 in. deep at front and 6 in. at back. Capacity 4 1/2 cu. ft. Barrows are fitted with steel wheels 16 inches diameter. All parts of the barrow are given a heavy coat of paint.

★ NET EACH, \$6.50

**CONCRETE BARROW**

Fig. No. 2198

For contractors. Capacity, 3 1/2 cubic feet. Tray measures 26 by 35 1/2 inches and is pressed out of one sheet of heavy steel. 5/16 inch rod rolled in top edge. Angle steel legs with reinforced shoe well braced. Nose guard. Heavy steel wheel with 1 1/4 by 5/16 inch tire running on a 5/8 inch steel axle. Neverslip bearings.

★ NET EACH, \$6.20

**CONCRETE BARROW**

Fig. No. 2199

For contractors. Tray is designed to handle wet concrete. Capacity, 4 cubic feet. 35 inches long, 25 inches wide at front, 24 inches wide at back, 18 inches deep in front, 8 inches deep in back. 14 gauge steel tray, top is rolled over a 5/16 inch rod. Net weight, 83 pounds.

★ NET EACH, \$6.50

**TUBULAR FRAME BARROWS**

These tubular frame all steel barrows are designed for heavy duty service such as wheeling coal and other bulky heavy material. Exceptionally strong and well made.



Fig. No. 1762 Shallow Tray

No.	Size of Tray, Inches	Steel Gauge	Capacity Cubic Feet	Complete ★ NET EACH	Extra Trays ★ NET EACH
12	29x32	No. 15	3	\$6.20	\$3.40
13	29x32	No. 13	3	\$7.45	\$4.10
14	29x32	No. 12	3	\$8.75	\$4.80
15	29x36	No. 14	4 1/2	\$7.80	\$4.30
16	29x36	No. 12	4 1/2	\$9.10	\$5.00
17	29x36	No. 10	4 1/2	\$10.00	\$5.45



Fig. No. 1413 Deep Tray

No.	Size of Tray, Inches	Steel Gauge	Capacity Cubic Feet	Complete ★ NET EACH	Extra Trays ★ NET EACH
18	33x42	No. 14	6	\$9.80	\$5.25
19	40x49	No. 16	8	\$13.70	\$7.60

**ALL-STEEL WELDED BARROWS**

Strong! Absolutely Rigid! Perfect Balance!

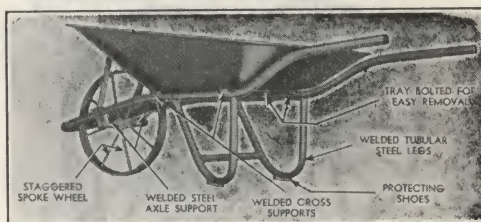


Fig. 5017

Electric welded tubular steel chassis. The tray is bolted to the chassis for easy removal. Welded tubular steel legs and frame. Protecting shoes on bottom of legs. Staggered spoke, 15 inch flat-tired wheel. Welded steel axle support. Welded cross supports. Extra supports at points of greatest stress.

COMPLETE BARROW					TRAY ONLY	
Mfrs. No.	Tray Gauge	Capacity Cubic Feet	Weight Pounds	LIST EACH	Tray No.	LIST EACH
<b>FOR CONTRACTORS, ETC., DRY MATERIALS</b>						
C356	16	3-1/2	67	\$14.50	C21	\$3.60
C354	14	3-1/2	73	\$15.18	C22	\$4.28
C352	12	3-1/2	79	\$16.74	C23	\$5.84
<b>FOR CONTRACTORS, FOUNDRIES, ETC., FOR HEAVY DUTY</b>						
C406	16	4	70	\$14.94	C24	\$4.04
C404	14	4	77	\$15.40	C25	\$4.50
C402	12	4	89	\$17.20	C26	\$6.30
<b>FOR CONTRACTORS, ETC., WET MATERIALS</b>						
M306	16	*4	72	\$15.18	C27	\$4.28
M356	16	*4-1/2	75	\$15.62	C28	\$4.72
M406	16	*5	80	\$15.94	C29	\$5.04
<b>*Struck capacity is 1 cubic foot less.</b>						
<b>FOR COAL, COKE AND SIMILAR BULKY ARTICLES</b>						
C604	14	6	89	\$18.10	C30	\$7.20
C804	14	8	100	\$20.62	C31	\$9.72

**FOR HEAVY DUTY IN FOUNDRIES, ETC.**

Same as above plus a 3/16 inch boiler plate platform which covers the entire bottom of the tray and extends nearly to the top at front. Welded channel steel reinforcement extends over all points of stress. Double tire of 3/4 inch total thickness.

C104.	16 gauge tray 4 cubic feet	...LIST EACH,	\$20.64
C105.	14 gauge tray 4 cubic feet	...LIST EACH,	\$21.10
C106.	12 gauge tray 4 cubic feet	...LIST EACH,	\$22.90

**DISCOUNT.....15% OFF**



## LONG MOUTHED COAL BARROWS



Fig. 2744

prevent barrow from "running back" when being dumped forward. Capacity 250 pounds anthracite coal. With Steel Wheel.....★ **NET EACH, \$12.25**

## PNEUMATIC RUBBER WHEELS

Fig. 5018

For use on ANY wheelbarrow. When ordering SPECIFY SIZE OF AXLE and WIDTH OF HUB. Tubeless Pneumatic 2 ply tire, 16 inch outside diameter by 4 inches.

With Plain Bearing .....★ **NET EACH, \$7.50**  
With Hyatt Roller Bearing .....★ **NET EACH, \$9.25**

## WOOD TRAY BOLTED BARROW

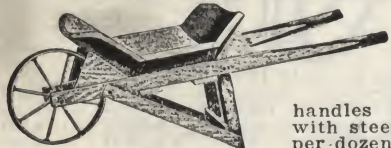


Fig. No. 1763

Common size, bent tray planed on both sides. Legs bolted to handles and well braced with steel wheel. Weight, per dozen, 510 pounds.

★ **NET EACH, \$4.20**

## CONCRETE BARROW

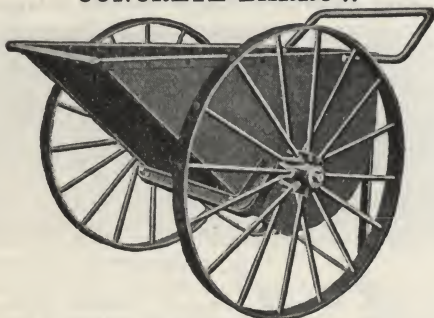


Fig. No. K-4

Has a carrying capacity of seven cubic feet, dry material; six cubic feet sloppy concrete.

It is fitted with a round bottom bowl, hung so that it will dump easily. Size of bowl, 23 3/4 inches long at top; 19 1/2 inches deep. Bowl is made of 14 gauge steel reinforced with angle iron entirely around top edge, forged corners.

Width of cart over all, 36 1/4 inches; height, 32 inches.

Wheels, 30 inches diameter, 2-inch tread. Spokes are staggered about two inches. Self oiling hub, dropped axle of cold rolled steel.

Weight, 200 pounds each.

★ **NET EACH, \$25.35**

## DUCK BILL CANT HOOKS

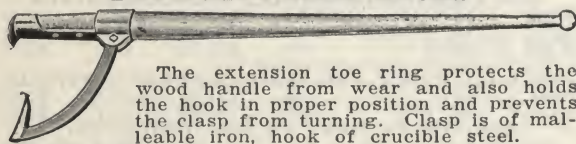


Fig. No. 3234

★ **NET PRICES PER DOZEN**

No.	Size	Wt., Lbs. per Doz.	★ <b>NET DOZEN</b>
189	2 1/2 in. x 4 1/2 ft.	85	\$24.30
190	2 1/2 in. x 5 ft.	90	\$25.00
193	2 3/4 in. x 5 ft.	95	\$29.00
196	3 in. x 5 ft.	108	\$36.00

## 100 POUND COAL BAGS



Fig. 5019

Made of heavy No. 4 first-grade duck. Patented turned seam, lock stitched and sewed with Sea Island thread. Riveted with rust proof cadmium plated rivets. The handles are set at CORRECT ANGLES. Holds 100 pounds of coal.

Heavy Web Handle .....★ **NET EACH, \$0.90**  
Canvas Handle .....★ **NET EACH, \$0.85**

## STEEL WAGON SHUTES



Fig. 1766

Made of high quality sheet steel. Frame is made of angle steel. Heavy angle steel band riveted to top end forms a wagon catch. Rigid. Bottom is not corrugated. For soft or hard coal.

Length Feet	Width At Top Inches	Width At Bottom Inches	Size Number	★ <b>NET EACH</b>
8	18	17	41	\$6.25
10	18	17	42	\$7.15
12	18	17	43	\$8.60

## TELESCOPE STEEL WAGON SHUTES



Fig. No. 1765

These shutes are made of the best quality sheet steel. The ends are heavily banded. Bottom not corrugated. Usually furnished with angle edges. Width at upper end 21 in., at lower end 12 in.

No.	Length of Shute, Feet	Length of Slide, Feet	Extreme Length, Feet	★ <b>NET EACH</b>
1	8	5	12	\$14.20
2	10	7	16	\$19.00
3	12	9	20	\$23.65

## SKIDS

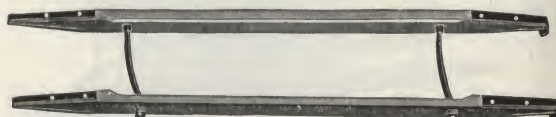


Fig. No. 1771

Made of selected oak, rock elm, or hickory. Ends heavily ironed. Oiled and varnished. Any size under six feet, same price as six feet.

No.	Length, Feet	Side Rails, Inches	Number of Cross-Bars	Weight, Pounds	★ <b>NET EACH</b>
2	6	1 3/4 x 3	2	34	\$ 5.10
4	7	1 3/4 x 3 1/4	2	38	\$ 5.95
6	8	1 3/4 x 3 1/2	3	40	\$ 6.75
7	9	1 3/4 x 3 1/2	3	45	\$ 7.60
8	10	1 3/4 x 3 3/4	3	50	\$ 8.50
9	12	1 3/4 x 4	4	65	\$10.25



### DIETZ ECONOMY FLOOD LIGHT

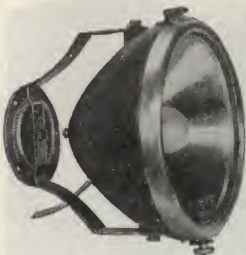


Fig. 4363

Has hundreds of uses. Waterproof and weatherproof. Complete inner shell. Plain glass lens, 9 1/4 inch diameter, tightly sealed by cork gasket. Light rays are reflected by chromium plated parabolic reflector. 100 watt bulb, 110 volts, 10 3/4 inch diameter. 7 3/4 inches deep, 18 inches of rubber covered wire and weatherproof grommet. Universal bracket, lamp can be tilted or turned in any direction. Steel body, black enameled with chromium plated rim.

Economy, As Shown.....★ **NET EACH, \$6.00**

Fig. 4363B. Angle Bracket. For mounting the Economy on buildings, trees, walls, etc. ★ **NET EACH, \$0.67**

Fig. 5294. Garage Floodlite. The Economy Floodlite is mounted on a 12 inch round metal platform and it moves on swiveled, roller bearing steel casters. Garage Floodlite ..... **NET EACH, \$8.25**

### DIETZ ROAD AND FOG LIGHTS

WITH AMBER LENS AND 50 CANDLEPOWER BULB

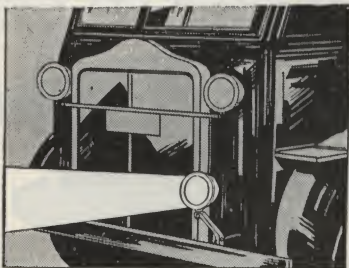


Fig. 5291

A foremost development in driving safety as it cuts fog. They can be set to point in any direction, flooding gutter, side of road and curves ahead with a low, powerful beam of light, which spreads 18 feet at a distance of 30 feet. Black and chromium finish. 50 candlepower. Body diameter is 5-13/16 inches with a depth of 4 inches. With black enamel bracket for placing on the bumper supporting member.

★ **NET EACH, \$2.45**

### "LITTLE WIZARD" LANTERN



Fig. 4240

Cold Blast. A handy all around small lantern. Gives double the light of a hot blast lantern using the same size of wick. Security standing bail. Brass eyelets. Safety (wing-lock) rising-cone burner. Reinforced tubes. Globe lift on inside of frame. Large oil filler. Patent locking globe. Double seamed, solderless, dome-shaped oil fount having 18 hours capacity. 11 1/2 inches overall. 6 candle power light, 3/4 inch wick. Uses kerosene. Bright tin.

With Ruby Globe .....★ **NET DOZEN, \$11.35**  
With Clear Globe .....★ **NET DOZEN, \$ 9.40**  
Extra Ruby Globes .....★ **NET DOZEN, \$ 3.40**  
Extra Clear Globes .....★ **NET DOZEN, \$ 1.45**

### MONARCH CONTRACTORS TUBULAR LANTERN

Double seam bottom; one piece tube, No. 1 burner. No. 0 globe. Crank lift inside of tube.

★ **NET DOZEN**

With White Globe .....\$ 8.40  
With Ruby Globe .....\$10.35  
Extra Lantern Burners .....\$ 1.50  
Extra Cotton Wicks .....\$ 0.12  
Extra, Clear O Globes .....\$ 1.45  
Extra, Ruby O Globes .....\$ 3.40



Fig. 2140

### ANTHES LEAKPROOF APPROVED TRUKFLAR

APPROVED IN ALL STATES REQUIRING TESTS

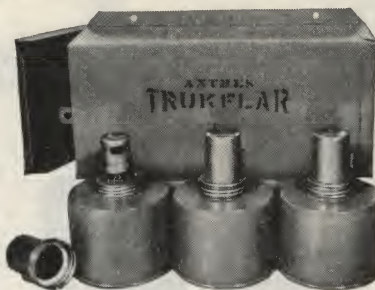


Fig. 5020

A flare unit with all the latest features. Re-designed and improved. Leakproof and theftproof. The carrying case is made of heavy steel and is rattleproof. There is a built-in flag pocket in combination sets. The flare will burn 8 to 16 hours. It will withstand heavy rain, and will burn in a gale. Approved in all states requiring tests. The burner is removable to service the wick. The positive uplift makes a better flame. When not in use a screw and cap with gasket prevents fuel loss and also extinguishes the flame.

No.	Flares	Flags, Inches	Complies With Law In	LIST SET
F1	One	.....	Without Case	\$0.85
C20	Two	.....	Wisconsin	\$2.50
S22	Two	Two 12x15	Indiana	\$3.25
C30	Three	.....	Illinois, Iowa, Michigan, Ohio	\$3.50
S32	Three	Two 12x15	Missouri	\$4.25
M33	Three	Three 24x24	Minnesota	\$5.25

K2. Truck flag. Set of 2—18 by 21 inch red truck flags with 16 inch folding base, in heavy canvas bag with snap fastener.

LIST SET .....\$1.50

M1B. Single automobile flare with bracket. LIST EACH .....\$0.95

#### DISCOUNTS

1 to 5 sets	.....	<b>25% OFF</b>
6 to 11 sets	.....	<b>30% OFF</b>
12 or more sets	.....	<b>33-1/3% OFF</b>

### TOLEDO TORCHES

IT BURNS UP TO 48 HOURS ON ONE FILLING



Fig. 4364

The harder it blows, the better these torches burn. Rights itself from any position. Burns kerosene. Three quart capacity. With Economy burner. Burns up to 48 hours on one filling. 20 gauge steel. Leakproof double seamed joint. Black enamel finish. Weight 5 1/2 pounds.

1 to 11 ....★ **Net Each, \$1.50**  
12 or More...★ **Net Each, \$1.20**  
Extra Wicks.★ **Net Dozen, \$ 1.50**  
Extra Wicks.★ **Net Gross, \$16.00**

### BURGESS TWIN-SIX ELECTRIC LANTERN

IT WILL THROW A LIGHT UP TO 1200 FEET

Fig. 5292. Mfrs. TW2

Focusing type, will throw up to 1200 foot beam. Switch on handle. Unbreakable convex lens. Parabolic reflector. Rubber collar seals lens to 24 gauge steel case keeping out moisture or dust. Very light in weight. Spare bulb is furnished and is held in cover. Silver lacquer finish. 1-3/4 pounds. Battery is extra.

★ **NET EACH, \$1.51**

Fig. 5293. Mfrs. 4F2H

Twin-six utility battery for above lantern. 3 volt. Equivalent to 2 — No. 6 dry cells.

15 in package ★ **NET EACH, \$0.47**  
1 to 14 .....★ **NET EACH, \$0.52**



Fig. 5292



## STEEL SHOP AND FOUNDRY BARRELS AND TRUCKS



Fig. No. 3546—Ready for Lifting

**Steel Barrel Truck.** One man can easily handle up to 600 pounds. The easy lifting and dumping of barrels with this truck makes it a real labor-saver which soon pays for itself. Barrels must be fitted with trunnions to be handled with this truck. For 18 inch diameter barrels.

★NET EACH, \$25.00

**Steel Shop Barrels.** Give long service. The maximum strength of the steel in the barrel is secured by a hem around the top and bottom edges, which is 4 times the thickness of the steel used. The shell and reinforcing folds being integral, maximum strength and rigidity is placed where it is most needed. The hem is lapped at the joint and secured by two rivets, making the top reinforcing continuous. Edges are all smooth, which prevent cutting the hands or damaging the floors. Painted black. Must have trunnions for handling with steel barrel truck or with overhead trolley or crane. No. 2 is recommended for ordinary work, No. 1 for light work, and No. 3 for extra heavy work. 18 inches diameter, 30 inches high.



Fig. No. 3547

No.	Gauge Shell	Gauge Bottom	Est. Wt., Pounds	★ NET PRICES EACH		
				Barrel Only	With Handles	With Trunnions
1	18	16	34	\$3.15	\$3.40	\$3.70
2	16	14	43	\$3.45	\$3.70	\$3.95
3	14	12	54	\$4.10	\$4.50	\$4.65

## STACKING BOXES &amp; UNITS



Fig. 5025

## STACKING BOX

The stacking rim is effective on four sides and is made up of several separate bends in the steel. The corners are reinforced by steel bands welded inside the rim. Stacking boxes conserve floor space and speed production. The boxes cannot telescope nor become unstacked from vibration.

Size No.	Inches Length, Width & Hght.	Gauge	★ NET EACH
801	10 x 16 x 6	18	\$1.10
802	10 x 18 x 6	16	\$1.21
803	12 x 18 x 6	16	\$1.31
804	12 x 18 x 8	16	\$1.42
805	12 x 20 x 10	16	\$1.76
50 to 99 ..... DEDUCT 10%			
100 or More ..... DEDUCT 10-10%			

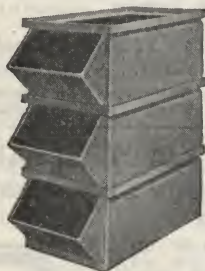


Fig. 5026

## STACKING UNIT

Made with the latest type sloping bin front with stacking rim effective on all four sides. They will stack interchangeably with the above stacking boxes of the same size. Will stack to any height.

Size No.	Inches Length, Width & Hght.	Gauge	★ NET EACH
701	10 x 16 x 6	18	\$1.38
702	10 x 18 x 6	16	\$1.50
703	12 x 18 x 6	16	\$1.64
704	12 x 18 x 8	16	\$1.77
705	12 x 20 x 10	16	\$2.20
50 to 99 ..... DEDUCT 10%			
100 or More ..... DEDUCT 10-10%			

## STEEL TAPER SHOP PANS



Fig. 3548

Made of one piece of steel with corners lapped around the sides and the top edges hemmed. Electrically spot-welded. Ends formed out as handles with hook hole in center.

Size No.	Inches Size	Gauge	★ NET EACH
0	10x21x5-1/2	18	\$0.95
1	10x21x5-1/2	16	\$1.01
2	11x22x6	18	\$0.97
3	11x22x6	16	\$1.05
25 to 99 ..... DEDUCT 10%			
100 or More ..... DEDUCT 10-10%			

## ALL-STEEL TOOL MAKERS AND MACHINISTS CASE



Fig. 3949

All steel. Double slides. Drawer stops. Reinforced with boxed ends and drop front. Brass lock and side catches.

Mfrs. 520		Mfrs. 516	
Size, Inches	Size, Inches	Size, Inches	Size, Inches
Till in top. 3 3/4 x 8 3/8 x 20	3 3/4 x 8 3/8 x 16		
4 drawers 1 1/2 x 7 1/2 x 18 1/4	1 1/2 x 7 1/2 x 14 1/2		
1 drawer 2 1/2 x 7 1/2 x 8 3/8	2 1/2 x 7 1/2 x 6 3/8		
1 drawer 2 1/2 x 7 1/2 x 18 1/4	2 1/2 x 7 1/2 x 14 1/2		
★ NET EACH			
Mfrs. 516	Size, Inches	Pounds	★ NET EACH
516	16x8 1/2 x 13	23	\$13.20
520	20x8 1/2 x 13	24 1/2	\$14.00

## MECHANICS' CANTILEVER TOOL BOXES

Finished inside and outside with a heavy coat of baked enamel. Equipped with standard locks and catches.



Fig. 3823. DRAWN STEEL

Drawn from a single sheet of specially processed lead coated steel. No seams or joints. Extra strong. Absolutely water tight.

Mfrs. No.	Trays & Width, In.	Lgth., Height, Wt. In. Lbs.	★ NET EACH
616	2	16x7x6-1/2	8 \$4.95
1916	2	16x7x6-1/2	7 \$2.00

Fig. 3830. THREE PIECE BOX		Heavy duty. Electric welded.	
Size	Trays & Width, In.	Lgth., Height, Wt. In. Lbs.	★ NET EACH
521	2	21x7x6-1/2	9-9/16 \$5.70
1619	2	19x8x9	15-3/4 \$10.30
1625	2	25x8x9	18-1/2 \$11.10

Fig. 3947. FOLDED CONSTRUCTION		1216	
Size	Trays & Width, In.	Lgth., Height, Wt. In. Lbs.	★ NET EACH
1216	2	16x6-3/4x6-1/2	6-1/4 \$1.65

## STEEL TOOL BOXES

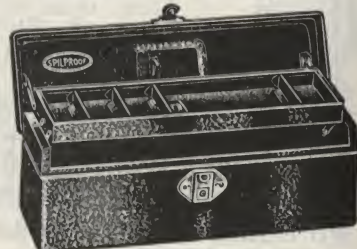


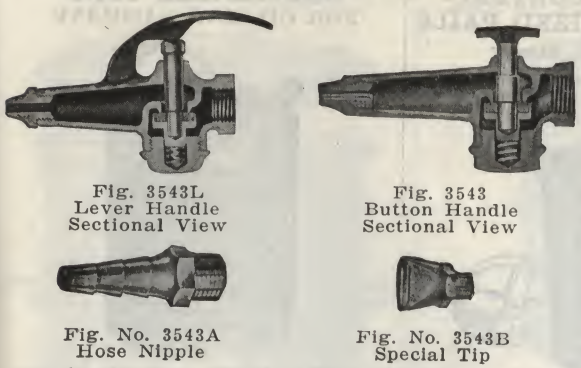
Fig. 5024

Made of steel with corners rounded. Seams electrically welded.

Size	Gauge	★ NET EACH
Inches	Steel	Tray
14x6x6-1/2	26	Cantilever \$1.00
14x6x6-1/4	26	Lift Out \$0.75
16x7x7-1/4	22	Lift Out \$1.95
19x7x7-1/4	22	Lift Out \$2.10
26x8x8	22	Lift Out \$3.75
32x8x9	22	Lift Out \$4.50



JENKINS AIR GUN



Simple, durable. Holds tight under pressure when closed, eliminating leakage and consequent air waste; and quickly responds to press of handle which freely emits the air. Renewable disc forms a perfect contact on the seat and takes up the wear of frequent usage. Cast of high grade steam bronze and is carefully finished, assembled, inspected and tested.

LIST PRICES EACH

LIST PRICES EACH			
Sizes, inches			
Air Gun, No. 3543 or 3543L	\$1.65	\$1.65	\$1.90
Special Tip, No. 3543B	.60	.60	.60
Extension Tip, Fig. 3543E	.85	.85	.85
Hose Nipples, No. 3543A			
1/8 x 1/8	\$0.45	1/4 x 1/4	\$0.50
1/8 x 1/4	.45	1/4 x 1/2	.50
1/8 x 3/8	.50	1/4 x 3/4	.60
1/8 x 1/2	.60	1/4 x 1	.65
1/8 x 3/4	.70	1/4 x 1 1/2	.75
PRICE (Specify Handle).....LIST PLUS 5%			



## HEAVY GALVANIZED WATER PAILS



Fig. No. 3126

Made up from black steel sheets and galvanized. Deep chime, large roll rim reinforced with heavy wire. Heavy wire bail; galvanized. Heavy wrought ears electrically welded on. 1 doz. in bdl.

### ★ NET DOZEN

Size No.	Size Inches	Trade Capacity, Quarts	Weight Lbs. Doz.	★Net Doz.
1310	12-3/4x9-7/16	10	37	\$5.40
1312	12 x9-7/8	12	39	\$5.85
1314	12-5/8x10-1/2	14	43	\$6.70
1316	12-1/2x11-3/4	16	48	\$7.50

## RADIATOR FILLING CANS



Fig. 5028

12 quart size. New 4 inch pouring spout reinforced with 7-1/2 inch strip of band iron. Anti-slip offset holds spout in place when pouring. Vertical corrugations for strength. Copper bearing steel, hot dipped galvanized.

Size No.	Size Inches	★ NET EACH	★ NET DOZEN
<b>STANDARD WEIGHT</b>			
6	9-3/8x10-1/4	\$1.30	\$12.60
<b>EXTRA HEAVY WEIGHT</b>			
60	9-3/8x10-1/4	\$2.20	\$21.35

## SPRINKLING CANS

Made from black steel sheets and hot galvanized; all edges coated, rust-proof, leak-proof. Convex grip. Spout, rigid, self-bracing, free-flowing fitted with removable zinc sprinkler rose. \* No. 520 and larger have combination filler-sprinkler spout.

### ★ NET PER DOZEN

No.	Size Ins.	Trade Cap. Qts.	Case Lots.	Case Dz.	Case Wt. Lbs.	★Net Doz.
514	6 $\frac{3}{8}$ x 6 $\frac{3}{4}$	4	$\frac{1}{2}$		11 $\frac{1}{4}$	\$8.65
516	7 $\frac{1}{8}$ x 7 $\frac{3}{4}$	6	$\frac{1}{2}$		15 $\frac{1}{4}$	\$7.34
518	7 $\frac{1}{8}$ x 9	8	$\frac{1}{2}$		17 $\frac{1}{4}$	\$8.40
520*	8 $\frac{3}{8}$ x 9 $\frac{3}{4}$	10	$\frac{1}{2}$		21 $\frac{1}{2}$	\$8.10
522*	9 $\frac{1}{8}$ x10 $\frac{1}{2}$	12	$\frac{1}{2}$		24	\$10.50
526*	10 $\frac{1}{8}$ x11	16	$\frac{1}{4}$		19 $\frac{1}{2}$	\$12.00

## CEMENT OR CONTRACTOR'S GALVANIZED PAILS

Double Extra Heavy



Fig. 6800

Double braced bottoms with wide strap. Without hoop. Extra heavy top wire. Extra strong steel ears secured with four rivets. Extra deep foot. Riveted bottom cross pieces. Extra long free swinging 3/8 inch bail. Copper bearing steel. Hot dipped galvanized. 14 quart capacity. 12-5/8 by 10-1/2 inches. Mfrs. 14. DOUBLE EXTRA HEAVY. Bundle of 6, 42 pounds.

★ NET EACH, \$1.60

★ NET DOZEN, \$15.00

Mfrs. 140. DOUBLE EXTRA HEAVY. Heavy wide top hoop riveted under top bead. Double braced bottom with wide strap. Bundle of 6, 52 pounds.

★ NET EACH, \$1.95

★ NET DOZEN, \$18.67

## TRACTOR FILLING CANS



Fig. 5029

5 Gallon Size. Large spout with brass strainer. Back handle. Wire bail with wood grip. Galvanized. Striped. An ideal fuel transfer can—from barrel to tractor or automobile.

Size No.	Size Inches	★ NET EACH	★ NET DOZEN
625	11-1/8	\$1.13	\$11.25

## GALVANIZED CANS FOR OIL AND GASOLINE



Fig. 3379

Galvanized. 1 and 2 gallon sizes: 1-1/2 inch filler openings. 5 gallon size. 2-3/16 inch filler openings. Hexagon screw caps. Ears securely riveted. Wire bails with heavy wood grips. Leakproof double seam construction. Galvanized breasts.

\*With combination extra large 1-3/8 inch and small 7/16 inch pouring spout.

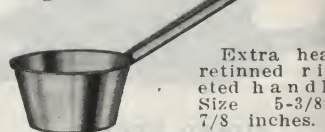
Size Nos.	Gallons Actual	★ NET EACH	★ NET DOZEN
<b>GALVANIZED—For Oil</b>			
101	1	\$0.42	\$4.20
102	2-1/16	\$0.58	\$5.75
105	5-1/4	\$0.90	\$9.10
155*	5-1/4	\$1.00	\$10.50

### PAINTED RED—For Gasoline

Size Nos.	Gallons Actual	★ NET EACH	★ NET DOZEN
501	1	\$0.50	\$4.55
502	2-1/16	\$0.60	\$6.15
505	5-1/4	\$1.00	\$9.80
555*	5-1/4	\$1.10	\$11.20

## WATER DIPPERS

Fig. 3281



Extra heavy retinned riveted handle. Size 5-3/8x2-7/8 inches.

★ NET DOZEN, \$2.50

## JAPANNED WATER COOLERS



Fig. No. 3124

Reservoir galvanized. Nickel-plated, self-closing push faucet. Ivory finish.

### ★ NET PRICES EACH

No.	Diam. In.	Body, Height, In.	Trade Cap.	Weight, Lbs.	★ NET EACH
02	9 3/8	14 3/8	2 gal.	12 1/2	\$2.70
03	10 1/4	16 1/2	3 gal.	16 3/4	\$3.10
04	10 3/4	18	4 gal.	19 3/4	\$3.50
06	12 3/4	20 3/4	6 gal.	28 1/2	\$4.00
08	13 3/4	22 1/2	8 gal.	31 1/4	\$4.95
010	15	23 1/8	10 gal.	59 1/4	\$6.30



## SAVORY BRAND ASH CAN



Fig. No. 3376

Made from black steel sheets, hot galvanized after manufacturing; rust-proof. Body extra heavy corrugated stock, will withstand roughest usage. Special constructed bottom, has deep chime with convex panel in center for stiffening. Double seamed to body. Bottom edge reinforced with specially formed steel hoop,  $\frac{1}{4}$  x 2 in.—riveted. Handles  $\frac{3}{8}$  in. wrought iron rods attached with riveted clips. Top has heavy reinforced roll,  $\frac{3}{8}$  in. diam., butt-welded. Strong, easy to handle. Top of slightly flaring shape. Cover of heavy steel, seamless, drawn from a single piece. Is rain-proof, fly-proof and dog-proof. 26 inches overall height. With cover.

## ★ NET PRICES EACH

No.	O. S. Diam.	Overall Ht. In.	Actual Cap. Gal.	Weight Lbs.	★ NET EACH
1618	18	28	20	26 $\frac{1}{4}$	\$4.70
1820	20	28	26	29 $\frac{3}{4}$	\$5.25
2022	22	28	32	31 $\frac{3}{4}$	\$6.00

## UTILITY STEEL BASKETS



Fig. 5030

Corrugated bodies. Without balls. Extra large drop handles with reinforcing clips. Heavy top wire. Copper bearing steel.

## HOT DIPPED GALVANIZED

Nos.	Capacity Bushels	Size Inches	★ NET DOZEN	★ NET EACH
150	1	17 $\frac{1}{2}$ x 11 $\frac{3}{4}$	\$9.10	\$0.90
175	1 $\frac{1}{2}$	21 x 12	\$13.40	\$1.35

## GALVANIZED SHEETS

1501	1	17 $\frac{1}{2}$ x 11 $\frac{3}{4}$	\$7.00	\$0.70
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ASH & GARBAGE CANS  
HOT DIPPED GALVANIZED

Fig. 5031

Heavy corrugated body. Heavy bottom. Heavy wired top. Raised bottom. Copper bearing steel, hot dipped galvanized.

Size Nos.	Actual Gallons	Wt. Lbs.	Size Inches	★ NET EACH	★ NET DOZEN
<b>ASH CANS—Straight Side</b>					
114	14 $\frac{1}{2}$	9	14 $\frac{3}{4}$ x 23 $\frac{1}{4}$	\$1.75	\$17.50
118	19 $\frac{1}{2}$	10	16 $\frac{3}{4}$ x 23 $\frac{1}{4}$	\$2.00	\$20.50
123	23 $\frac{3}{4}$	11 $\frac{1}{4}$	18 $\frac{3}{4}$ x 23 $\frac{1}{4}$	\$2.30	\$23.10
<b>ASH CANS—Tapered Side</b>					
131	31	16	21 x 25 $\frac{1}{2}$	\$2.60	\$25.00
<b>GARBAGE CANS—Ball Handle</b>					
02	5 $\frac{1}{2}$	5	12 $\frac{3}{4}$ x 12 $\frac{3}{4}$	\$1.00	\$10.15
03	8 $\frac{1}{2}$	6	14 x 14 $\frac{3}{4}$	\$1.15	\$11.55
04	9 $\frac{5}{8}$	7	14 x 16 $\frac{3}{4}$	\$1.30	\$12.90

## TRACTOR OR AUTOMOBILE FUNNELS



Fig. 5032

Extra heavy weight. With brass wire strainer. Copper bearing steel, hot dipped galvanized.

Mfrs. No.	Capacity Quarts	Size Inches	★ NET EACH	★ NET DOZEN
31	3 $\frac{3}{4}$	9 $\frac{1}{2}$ x 10	\$0.75	\$7.50
51	13	12 x 15 $\frac{1}{4}$	\$0.95	\$9.20

## UTILITY MEASURES



Fig. 5033

With funnel attached. Copper bearing steel, hot dipped galvanized. Built to exact specifications of United States Bureau of standards.

Size No.	Actual Quarts	★ NET EACH	★ NET DOZEN
384	1	\$0.45	\$4.63
385	2	\$0.55	\$5.60
386	4	\$0.63	\$6.30

## HUFFMAN SELF-DRAIN OIL MEASURES



Fig. 5034

Made of heavy lead-coated steel, and finished in copper bronze. Will stand up under hard use. Spill-proof top. Flood-proof, RIGID; NON-SLIP spout on ground swivel joint automatically closes when spout is returned to upright position. It drains alone, insert rigid spout in intake and open valve—it does NOT have to be held.

1 Quart	.....	★ NET EACH, \$3.25
2 Quart	.....	★ NET EACH, \$3.55
4 Quart	.....	★ NET EACH, \$4.35
5 Quart	.....	★ NET EACH, \$4.65
6 Quart	.....	★ NET EACH, \$4.95

## HUFFMAN 'SEALDOYL-CAN' SELF-DRAIN DISPENSERS



Fig. 5035

With rigid, self-drain spout on ground swivel joint. Thumb-control valve. Opens cans easily. It drains alone, freeing both hands from the dispenser. Heavy lead coated steel, finished in copper bronze.

For 1 Quart Can	★ NET EACH, \$3.60
For 5 Quart Can	★ NET EACH, \$4.95

## HUFFMAN 'SEALOYL-CAN' SPOUT



Fig. 5036

A can opener, holder and pouring spout combined in one. Sturdy and durable. Heavy steel, finished in copperized bronze.

For 1 Quart Can	★ NET EACH, \$1.50
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# BROOMS, BRUSHES AND MOPS

## WAREHOUSE BROOMS



Fig. 2746

Made of all corn with a good heavy handle, wire bound and twine sewed. For rough sweeping or scrubbing.

LIST DOZEN

\$9.50

1 to 5.....25%

6 to 11.....30%

12 or More 35%

## HOTEL BROOM

Fig. 2746H. 26 pounds to dozen.

★ NET DOZEN, \$7.20

Fig. No. 2902  
Style 7

## INDUSTRIAL BROOMS

Improved machine nailed metal case construction.

Style No. 7—Bamboo and corn mixed factory broom, for heavy duty. Wt., 35 lbs. per doz.

★ NET DOZEN, \$7.70

Style No. 3—All corn factory brooms for general use. Wt., 35 lbs. per doz.

★ NET DOZEN, \$9.60

## BASS PUSH BROOMS



Fig. No. 2745

Length, Inches	14	16
Width, Inches	3	3 3/4
Rows of fibre	4	5
Length of fibre, Inches	5 1/4	6
★ NET EACH	\$0.90	\$1.20
★ NET DOZEN	\$8.90	\$11.75

## PURE PALMETTO SCRUBBING BRUSHES



Fig. No.	Block Inches	No. of Rows	★ NET EACH	★ NET DOZEN
4437	8 1/4 x 2 3/4	5x13	\$0.30	\$3.00
4438	9 3/4 x 2 3/4	5x17	\$0.35	\$3.60



Fig. 4440

Hub shape. Hand buffed block. 7 1/2 by 2 3/4 inches. 5 by 16 rows of Pure Palmetto. Trim 1 1/4 inches.

★ NET EACH, \$0.30

★ NET DOZEN, \$3.00

## FLOOR BRUSH



Fig. 2616

## FOR SMOOTH AND SEMI-SMOOTH FLOORS

Extra quality with extra body. Black horse hair and palma mixed. 3 inch trim. Red block. For sweeping smooth surfaces.

Length Inch	LIST DOZEN	Length Inch	LIST DOZEN
12	\$24.00	24	\$48.00
14	\$28.00	30	\$60.00
16	\$32.00	36	\$80.00
18	\$36.00		

Fig. 4532

## FOR SEMI-SMOOTH AND ROUGH FLOORS

Gray tampico center with gray horse hair casing. Stock is 2 1/4 inches long. Has the right stiffness for general use, rough wood, or concrete floors.

14 Inch	LIST DOZEN, \$25.00
16 Inch	LIST DOZEN, \$28.50
18 Inch	LIST DOZEN, \$34.00

## DISCOUNT—Figs. 2616 and 4532

1 to 11	33 1/3% OFF
12 to 35	40% OFF
36 or More	40-10% OFF

## NO. 1 RUBBER FLOOR SCRUBBER



Fig. No. 2863

Made of pure gum rubber 1/4 inch thick and a clear, sound, hardwood block 1 inch thick. The rubber is fastened into the groove with screws.

★ NET DOZEN

Size, in.	14	16	18
Net per Doz.	\$2.70	\$3.00	\$3.30

## MERCHANTS WASTE PAPER BALER

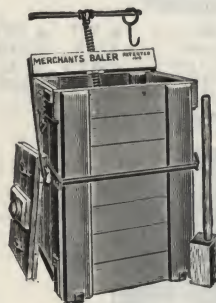


Fig. 5243

The beam drops back out of the way. Divergent sides allow bales to drop out easily. With: hook for handling bales; time saving tamper; lever for screw; and wire for baling 1,000 pounds of paper.

Size No.	2	3	4
Weight, Pounds	140	160	175
Height, Inches	48	48	54
Width, Inches	22	30	36
Depth, Inches	24	24	26
Bale Height, In.	31	33	36
Bale Width, In.	18	24	26
Bale Depth, In.	17	18	18
Bale Weight, lbs.	95	135	165
★ NET EACH	\$13.50	\$15.50	\$17.50
Extra Bale Ties	...	★ NET 250, \$2.25	

## MOP HEADS RING SPUN COTTON YARN



Fig. 4441

A special twisted fine grade of 16-ply ring spun, long fibre, cotton yarn. Hard wearing. Trimmed and bound with 1 inch heavy tape.

★ NET DOZEN

20 Ounces	\$5.00
24 Ounces	\$5.80
32 Ounces	\$8.00

## MOP STICKS



Fig. 4578

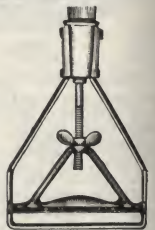


Fig. 4579

Fig. 4578. Clinched-On-Head. A superior quality. A heavy steel ring supports the spring. Large and strong lever. One-piece, strong, steel head, 7 1/2 inch wide. Metal parts are coppered. 1 1/2 by 54 inch handle.

1 or 2 .....★ NET EACH, \$0.30  
3 or More .....★ NET EACH, \$0.25

Fig. 4579. Screw type for professional janitors. One piece Malleable iron head. Cadmium wing nut. Brass screw. Long Malleable Socket with tapered opening insures a tight driving fit on handle. 1 1/2 by 54 inch handle.

1 or 2 .....★ NET EACH, \$0.75  
3 or More .....★ NET EACH, \$0.65

## MOP WRINGER



Fig. 4531

Heavy duty, hand operated. Metal steel casters. Backstop prevents bucket from moving backward. Holds 14 or 16 quart pails, which are extra, see page 400.

FIG. 4531S. STEEL ROLLERS. Seamless steel rollers, cadmium plated. Non-slip foot pedal. Steel shaft through roller runs on solid metal bearings.

★ NET EACH, \$3.75

FIG. 4531W. WOOD ROLLERS.

★ NET EACH, \$2.00



# WIRE & FIBER BRUSHES

## SAMSON ADAPTER WIRE WHEEL BRUSHES

Used for metal polishing and cleaning, removing rust scale or paint, tire roughing or buffing and general brushing operations. The thousands of strands of fine tough service-giving steel wire are so encased in metal disc center as to practically eliminate breakage from the constant vibration. Brush wears down evenly. Is a single complete unit. Standard two-inch opening. Use metal adapters for different size arbors.

Mfrs. No.	Diam., Inches	Face, Inches	Gauge	LIST EACH
4063	6	1 1/4	36	\$3.30
4083	8	1 1/2	36	\$4.00
4104	10	2	34	\$7.34
4124	12	2 1/2	33	\$8.36
4155	15	3		

1 to 5.....25% OFF

6 or More.....33 1/3% OFF

1, 1 1/4, 1 1/2 inch ..★ NET EACH, \$0.15

## 4-INCH WIRE WHEEL BRUSH

Fig. 3727

For flexible shaft and portable grinder equipment. Three sections, each section complete in itself. One or more sections mounted on shaft according to width of face desired. Metal disc center is punched with 1/2-inch arbor hole and fits directly on shaft. Four-inch diameter. Face 1-inch wide.

★ NET EACH, \$1.80



Fig. 3201

## CURVED HANDLE WIRE BRUSH

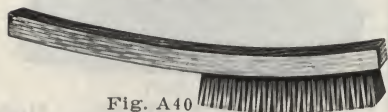


Fig. A40

Particularly suited for architectural iron work, figured brass and finished castings. Also used as file cleaning brush. 3x19 rows, 1 1/4 inch length of wire. 14 in. long.

★ NET DOZEN, \$2.00

## HANDLE WIRE BRUSH



Fig. No. A44

Designed for cleaning surfaces where a narrow brush is required; 4x17 rows, 1 1/4 inch length of wire. 10 in. long.

★ NET DOZEN, \$2.40

## FLAT BACK WIRE BRUSH



Fig. No. A31

Especially adaptable to removing scaly and blistered paint, quickly and easily; 6x19 rows, 1 1/4 inch length of wire. 7 1/4 in. long.

★ NET DOZEN, \$2.75

## FOUNDRY CASTING WIRE BRUSH

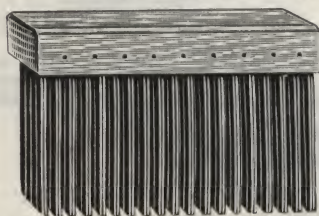
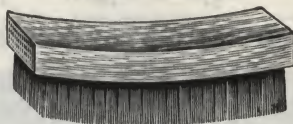


Fig. 3981

Plain. 5 by 10 rows of first quality flat tempered steel wire, size .017 by .059, 4 inches long. Solid hardwood block, 7 3/4 by 2 1/2 inches.

★ NET DOZEN, \$5.28

## ROCKER BACK WIRE BRUSH



No. A35

### "THE PAINTER'S FRIEND"

Cleans and prepares flat varnished or painted surfaces for refinishing; 9x21 rows, 1 1/4 inch length of wire. 7 1/4 in. long.

★ NET DOZEN, \$4.10

## PAINTERS WIRE DUSTER

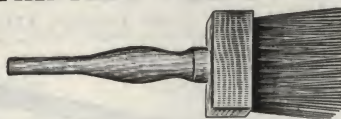


Fig. No. A400

Painter's fine round wire duster, for cleaning moulded casing, brushing chips, borings from machine; 6x10 rows, 2 1/2 inch length of wire. 9 3/4 in. long.

★ NET DOZEN, \$2.76

## CREAMERY OR FENDER PALMETTO BRUSH



Fig. 0416.—Short Handle.

Solid block, staple set, brush part 4x5 inches, heavily filled with stiff palmetto fiber. 10 inches overall.

★ NET DOZEN, \$3.56

## FIBER MILK CAN SCRUB

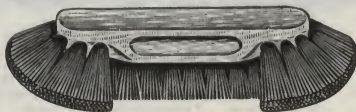


Fig. 08

Stiff Jersey palmetto fiber filled, width of flare 5 inches, length 10 inches, solid block, staple set, very full.

★ NET DOZEN, \$3.90

## FOUNDRY OR BENCH TAMPICO BRUSHES



Fig. No. 2614

For shop and foundry use. Grey tampico, 2 3/4 inch out of block, well filled and substantial. 1/2 dozen in box.

Length, Inches ★ NET DOZEN

8	.....\$5.20
9	.....\$5.50
10	.....\$5.80



Fig. No. 2615

Upturned end, made on heavy natural polished block. A close set, compact, stiff brush for general use. 1/2 doz. in box.

Length, Inches ★ NET DOZEN

10	.....\$6.90
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## HANKE WINDOW SQUEEGEES

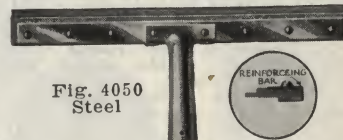


Fig. 4050  
Steel

Mfrs. 4. For the merchant's use. 2 ply select quality rubbers. Reinforced steel frame. Bright rust proof finish. Strong metal handle.

Size	★ NET EACH	★ NET DOZEN
8 Inch	\$0.45	\$4.12
12 Inch	\$0.50	\$4.90
14 Inch	\$0.55	\$5.25
16 Inch	\$0.60	\$5.60



Fig. 4052  
Brass

Mfrs. 1. For professional use. Pure white service rubbers, 2 ply. Rubbers replaceable. Solid brass frame. Brass screws. Lacquered.

Size	★ NET EACH	★ NET DOZEN
16 Inch	\$1.50	\$12.75
18 Inch	\$1.60	\$13.50



# OSBORN BRUSHES

## FLOOR SWEEPING BRUSHES



Fig. 5037

FOR COARSE SWEEPING. For wood blocks, rough concrete, brick surfaces, etc. **Stiff Palmetto fibre center block, Tampico fibre in body. Pure black horse hair casing.** Raised center block. Red lacquered polished finish. Two threaded handle holes. Staple set. Oval face. Length of stock is 3-1/4 inches. Handle is included in price.

Mfrs. No.	Length Block Inches	Shipping Weight, Dozen	LIST DOZEN
984	14	43	\$38.86
986	16	45	\$43.86
988	18	49	\$49.86
989	24	58	\$66.90
990	30	72	\$94.40
991	36	84	\$109.98

Fig. 5038

FOR MEDIUM SWEEPING. For semi-smooth concrete, unfinished wood floors, etc. **Mixed black horse hair and Tampico fibre.** Raised center block, red lacquered, polished. Two threaded handle holes. Staple set. Length of stock is 2-7/8 inches. Handle is included in price.

Mfrs. No.	Length Block Inches	Shipping Weight, Dozen	LIST DOZEN
222	12	32	\$21.12
224	14	36	\$22.22
226	16	38	\$25.00
228	18	41	\$27.22
229	24	48	\$41.12

## WINDOW BRUSHES



Fig. 5046

OBLONG. Solid natural polished block 8 by 2-1/2 inches. Square ends. Staple set. Oval face. **Pure black horse hair, 2-1/2 inch trim.** Handles are extra. Mfrs. 93.....LIST DOZEN, \$12.22



Fig. 5047

PROFESSIONAL OBLONG. High grade pure gray russian bristle. 3-3/8 inch trim. Solid natural polished block 8 by 2-1/2 inches. Rounded ends. Two handle holes. Cement set and pegged. Oval face. Handles are extra.

Mfrs. 44.....LIST DOZEN, \$104.92

**WINDOW BRUSH HANDLES**  
8 Foot .....LIST DOZEN, \$3.90  
10 Foot .....LIST DOZEN, \$5.12



Fig. 5048

ROUND. **Pure black horse hair, 2-1/4 inch trim.** Solid, red lacquered, polished block 4-3/4 inches in diameter. Two handle holes. Staple set. Oval face. Handles are extra.

Mfrs. 37.....LIST DOZEN, \$12.22

## PUSH BROOMS



Fig. 5039

FOR HEAVY SWEEPING ON UNEVEN SURFACES. For street paving and repair work, for stables, etc. **Tempered flat steel wire, 5 inch trim, 4 rows wide.** Selected two-piece hardwood block. Handles are extra.

Mfrs. No.	Block Inches	Brush Face	Shpg. Wt. DOZEN	LIST DOZEN
120	12x2-3/8	11x2	28	\$15.18
121	14x2-3/8	13x2	33	\$16.70
122	16x2-3/8	15x2	39	\$20.32
4-1/3 Foot Handle				\$2.00



Fig. 5040

FOR SWEEPING OR SCRUBBING ON SMOOTH TO ROUGH SURFACES. For cement, stone floors, etc. **Tempered fine round steel wire, 6 rows wide.** Solid block. Handles are extra.

Mfrs. No.	Block Inches	Trim Inches	Shpg. Wt. DOZEN	LIST DOZEN
141	12x2-1/2	3-1/2	32	\$21.48
142	14x2-1/2	3-1/2	34	\$24.16
4-1/3 Foot Handle				\$2.00

## FLOOR SCRUBBING BRUSHES



Fig. 5041

To be used with long handles, (extra). Solid block 10 by 2-3/4 inches. Staple set. Two tapered staff holes. **Palmyra fibre, 1-5/8 inch trim, 6 rows wide.** Mfrs. 420 .....LIST DOZEN, \$4.96  
4-1/3 Ft. Handle LIST DOZEN, \$2.00

## MOULDERS' BRUSHES



Fig. 5042

Soft. **Pure black horse hair, 3 inch trim, 5 rows wide.** Staple set. Solid hardwood block 8-3/8 by 2 inches.

Mfrs. 205-S.....LIST DOZEN, \$14.22

## PLATERS BRUSHES



Fig. 5043

LONG CURVED HANDLE. **White Tampico fibre, 4 rows wide, 5-1/2 inches long, 1 inch trim.** Solid block, 1-1/8 inches wide, 13-1/4 inches overall. Staple set.

Mfrs. 263-A.....LIST DOZEN, \$2.52



Fig. 5044

SHOE HANDLE. **Gray Tampico fibre, 4 rows wide, 5-1/4 inches long, 1 inch trim.** Solid block, 1-1/16 inches wide, 10 inches overall. Staple set.

Mfrs. 278.....LIST DOZEN, \$3.37

## SPOKE OR WHEEL CLEANING BRUSH



Fig. 5045

**White Tampico fibre.** Brush part is 10 inches long. Length overall is 16 inches. Diameter of body is 2-3/4 inches. Diameter of tip is 1-3/8 inches.

Mfrs. 5727.....LIST DOZEN, \$2.78

## STEEL WIRE SCRATCH BRUSHES

Seasoned hardwood blocks. The wire is especially drawn and correctly tempered.



Fig. 5049

SHOE HANDLE. Length of brush is 5-1/4 inches. Length overall 10 inches. 4 by 16 rows. Length of wire, 1-1/4 inches.

Mfrs. 1781.....LIST DOZEN, \$4.17

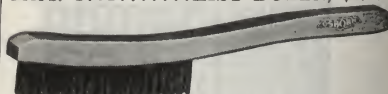


Fig. 5050

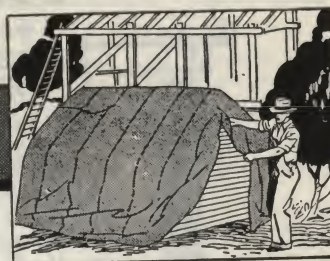
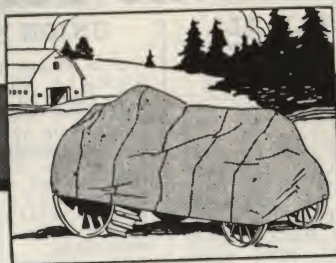
CURVED HANDLE. Length of brush is 6 inches. Length overall 13-15/16 inches. 3 by 19 rows. Length of wire, 1-3/32 inches.

Mfrs. 1777.....LIST DOZEN, \$3.38

**DISCOUNT** { 1 to 11 ..... 25% OFF  
12 or More ..... 33-1/3% OFF



# BROWN WATERPROOFED TARPULINS AND WHITE PAULINS



Full weight. Extra quality closely woven duck. Treating process on the brown covers thoroughly impregnates every part of fibre, preserving and prolonging life of the fabric by keeping it soft and pliable. Lap-felled seams run the long way, double stitched. Brass eyelets (grommets) around outer edge, well reinforced. Prices for other sizes, colors, or weights will be quoted on application.

## ★ NET EACH

### BROWN WATERPROOFED TARPULINS

Size	Fig. 3474 9.93 OUNCE	Fig. 3631 12.41 OUNCE	Fig. 3475 14.90 OUNCE
5 by 7 Feet	\$1.55	\$1.80	\$2.15
6 by 8 Feet	\$2.30	\$2.85	\$3.20
6 by 10 Feet	\$2.85	\$3.45	\$3.95
7 by 9 Feet	\$3.20	\$3.60	\$4.20
8 by 10 Feet	\$3.95	\$4.60	\$5.50
8 by 12 Feet	\$4.80	\$5.40	\$6.50
10 by 12 Feet	\$5.50	\$6.60	\$7.70
10 by 14 Feet	\$6.50	\$7.45	\$9.00
10 by 16 Feet	\$7.25	\$8.60	\$10.10
12 by 16 Feet	\$9.00	\$10.70	\$12.40
14 by 16 Feet	\$11.00	\$12.90	\$14.55
14 by 20 Feet	.....	\$15.60	\$18.35
16 by 20 Feet	.....	\$17.20	\$20.15
18 by 20 Feet	.....	\$19.30	\$21.00
18 by 24 Feet	.....	\$22.90	\$27.15

## ★ NET EACH

### WHITE DUCK PAULINS—Not Treated

Size	Fig. 3391A 9.93 OUNCE	Fig. 3391B 12.41 OUNCE	Fig. 3391C 14.90 OUNCE
5 by 7 Feet	\$1.35	\$1.55	\$2.05
6 by 8 Feet	\$2.05	\$2.60	\$3.00
6 by 10 Feet	\$2.60	\$3.20	\$3.60
7 by 9 Feet	\$2.75	\$3.30	\$3.85
8 by 10 Feet	\$3.35	\$4.10	\$4.95
8 by 12 Feet	\$3.95	\$4.80	\$5.75
10 by 12 Feet	\$4.80	\$5.85	\$7.10
10 by 14 Feet	\$5.65	\$6.65	\$8.15
10 by 16 Feet	\$6.50	\$7.75	\$9.15
12 by 16 Feet	\$7.80	\$9.40	\$11.25
14 by 16 Feet	\$9.65	\$11.50	\$13.20
14 by 20 Feet	\$11.70	\$14.20	\$16.85
16 by 20 Feet	\$13.40	\$15.95	\$18.80
18 by 20 Feet	\$15.40	\$17.70	\$21.75
18 by 24 Feet	\$17.70	\$21.00	\$24.90

## TOWER'S GENUINE "FISH BRAND" WATERPROOF CLOTHING

One of the most popular and widely known lines on the market. Tower's "Fish Brand" is a guarantee of highest values in wet weather clothing—garments that wear better, fit better and look better. Guaranteed against defects by the manufacturer. Note: There is an extra charge of 10% for garments in 00 size.



**Slicker**

"The best all-round wet weather garment" say thousands of wearers. Double throughout, fitted with patented inside storm lap and Reflex edges, two "Stayd-fast" patented pockets, will not rip; cloth lined collar with throat piece. Specify sizes.

Size	..... 0	1	2	3
Chest, In.	44	42	40	38
Length, In.	56	54	52	52

No. 121T—Yellow.  
No. B121T—Black.  
No. OK121T—Khaki.

★ NET EACH, \$3.40



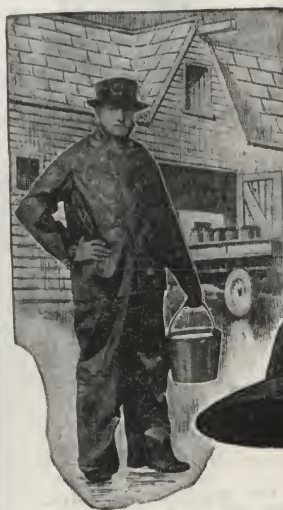
**Medium Coat**

Made exactly the same as the regular Reflex Slicker, only a shorter pattern, providing greater ease of movement. Double throughout, has inside storm lap and Reflex edges, cloth lined collar, inside storm cuffs, two "Stayd-fast" patented pockets. Specify sizes.

Size	..... 0	1	2	3
Chest, In.	44	42	40	38
Length, In.	44	44	44	44

No. 421T—Yellow.  
No. B421T—Black.

★ NET EACH, \$3.30



**2 Piece Suits**

Comprising jacket and overalls. Used extensively by farmers, teamsters and fishermen. Jackets with inside storm lap and Reflex edges. Specify sizes.

#### Jackets

Size	..... 0	1	2	3
Chest, In.	44	42	40	38
Length, In.	31	30½	30	36

No. 601T—Yellow.  
No. B601T—Black.

★ NET EACH, \$1.80

#### Overalls

Size	..... 0	1	2	3
Waist, In.	48	46	44	42
Length, In.	30	30	29	29

No. 801T—Yellow.  
No. B801T—Black.

★ NET EACH, \$1.80

## Tarp Hat

A popular lower-priced hat for the general trade, and when fitted with leather lamp fittings is very satisfactory as a miner's hat. Sizes 6¾, 7, 7¼, 7½. Specify sizes.

Size	..... 6¾	7	7¼	7½
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No. 11T—Yellow.  
No. B11T—Black.

★ NET EACH, \$0.55



# FAIRBANKS SCALES

## PORTABLE ALL METAL DUPLEX BEAM SCALES

Fig. 5051

Exceptionally fast and convenient for general weighing in all industrial operations. **DIRECT READING WITHOUT THE USE OF LOOSE COUNTER POISE WEIGHTS.** Made entirely of metal with steel clad platform. Cast brass beams with raised figures and graduations for quick and easy reading. The beams are mounted on two fulcrum stands rigidly attached to the top of the metal pillar shelf. The sliding poises are center indicating. Beveled sides eliminate shadows from being cast on the beam, removing chances of error in reading. Built throughout for accurate and reliable service. Finished in black enamel, with blue pillar.



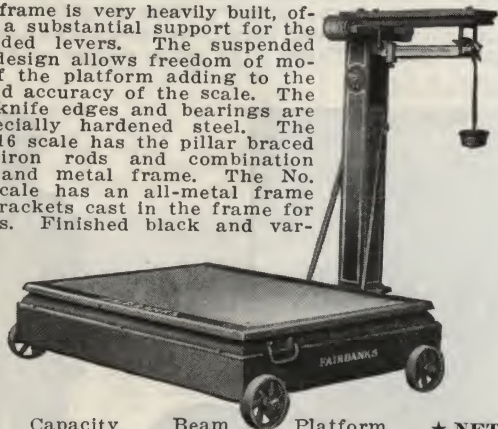
Mfrs. No.	Capacity Pounds	Main Beam Pounds	Fractional Beam Pounds	Platform Inches	★ NET EACH
12066	500	500x10	10x1/4	16x25	\$27.75
12064	1000	1000x10	10x1/2	18x27	\$33.10

## HEAVY DUTY PORTABLE SCALE—LARGE PLATFORMS

Fig. 5052

For weighing materials which are bulky in proportion to their weight, these scales have large platforms sufficiently high to prevent overhanging materials being weighed from coming in contact with the floor.

The frame is very heavily built, offering a substantial support for the suspended levers. The suspended lever design allows freedom of motion of the platform adding to the life and accuracy of the scale. The pivot knife edges and bearings are of specially hardened steel. The No. 1316 scale has the pillar braced with iron rods and combination wood and metal frame. The No. 1310 scale has an all-metal frame with brackets cast in the frame for inclines. Finished black and varnished.



Mfrs. No.	Capacity Pounds	Beam Pounds	Platform Inches	★ NET EACH
1310	1000	100x1/2	42x30	\$90.00
1316	2000	100x1/2	44x34	\$108.00

## AUTOMATIC PARCEL POST SCALES

Fig. 5053

70 pounds capacity.

Weights and automatically computes the amount of postage required for fourth class mail. The entire chart is visible at all times and has clear, distinct graduations and large, clear figures. Accurate and sensitive. Constructed to withstand heavy shocks and rough usage. NO springs and NO delicate parts. Heavy sheet steel platform overhangs the frame. The back of the platform is turned up. 12-1/2 by 14 inch platform.

★ Net Each, \$119.00



## UNION PLATFORM & SCOOP SCALES

The scoop is snugly supported in a broad fork. The scoop is a convenient size and shape and can be set on the counter when filled with loose materials.

These scales allow weighing independently with either the scoop or platform.

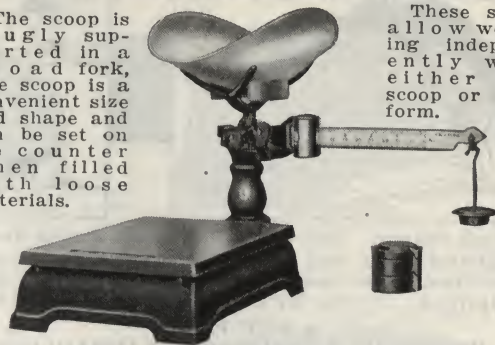


Fig. 5056

Strong and compact. Substantial iron frame. Large iron platform. Arrow tip brass beam has a smooth top and sliding poise. Rough nickel plated counterpoise and loose weights make up the full capacity. Black baked enamel. 250 Pounds Capacity. 10-1/2 by 13-1/2 inch platform.

Mfrs. No.	Scoop	Graduation Pounds	Graduation Ounces	★ NET EACH
<b>SINGLE BEAM</b>				
508	Tin	5 x 1/2	Upper 50x1/4	\$18.00
510	Brass	5 x 1/2	Lower 50x1/4	\$19.80
<b>DOUBLE BEAM</b>				
512	Tin	5 x 1/2	Front 50x1/4	\$19.80
514	Brass	5 x 1/2	Back 50x1/4	\$21.60

## PLATFORM COUNTER SCALE

Fig. 5054

For accurate weighing. Built of metal throughout. Short iron pillar. IRON platform. The arrow-tip brass beam has a smooth top with sliding brass poise. Loose iron weights make up the full capacity of the scale. Black enamel finish with gold stripe and varnished.

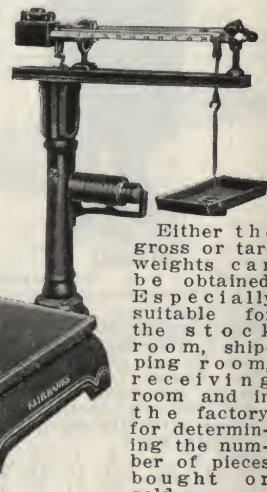


Mfrs. No.	Cpcy. Lbs.	Beam Lbs. Ozs.	Platform Inches	Height Overall	★ NET EACH
528	200	5x1	10-1/2x14	18-1/2	\$21.60
1212	300	10x2	13-1/2x19-1/2	28	\$28.80

## UNIT COUNTING SCALES

Fig. 5055

Sturdily built all of metal. Suspended platform. Agate beam bearings. Accurate and sensitive. The ratio is fixed between the load on the platform and the small scoop, (see below). The beam is arranged with a counting tray which is graduated in units of one, providing a means of arriving at a direct total count of either a known or unknown quantity. Arrow-tip brass beam with brass poise.



Either the gross or tare weights can be obtained. Especially suitable for the stock room, shipping room, receiving room and in the factory for determining the number of pieces bought or sold.

Type	Cpcy. Lbs.	Beam Lbs. Ozs.	Platform Inches	Ratio	★ NET EACH
Counter	300	3x1/4	13-1/2x19-1/2	50 to 1x1	\$65.00
Platform	1000	100x16	18 x27	100 to 1x1	\$65.00



**FAIRBANKS PORTABLE PLATFORM SCALES**

**With Wheels**

One of the most efficient types for general use. It is equipped with arrow-tip single beam having a sliding poise with set-screw, all of brass.

Durably and attractively finished in blue with bronze stripe, all well varnished for protection.

**★ NET PRICES EACH**

No.	Capac., Lbs.	Beam, Lbs.	Platform, In.	★ Net Each
1128	500	50 x 1/4	16 x 25	\$21.20
1124	1000	100 x 1/2	18 x 27	\$24.30

**Note.**—The first figure given in the platform sizes is the dimension parallel with the beam.



Fig. No. 3171

**FAIRBANKS PORTABLE PLATFORM CREAMERY SCALES**

**With Double Beam and Wheels**

For accurate weighing of milk and cream for creameries, cheese factories, condenseries or receiving stations and also for general weighing. Platform will hold one or more cans. Strongly built.

The scale is fitted with brass arrow-tip double beam, both bars being graduated alike. Lower bar equipped with set-screw poise for tare.

**★ NET PRICES EACH**

No.	Capac., Lbs.	Beam, Lbs.	Platform, In.	★ Net Each
1278	500	100 x 1/2	16 x 25	\$27.75
1280	1000	100 x 1/2	18 x 27	\$33.00

**Note.**—The first figure given in the platform sizes is the dimension parallel with the beam.

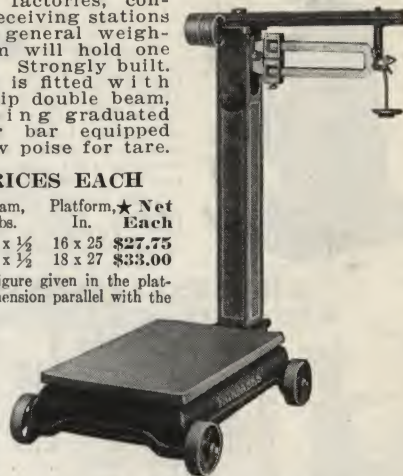


Fig. No. 3182

**FAIRBANKS PACKAGE SCALES**



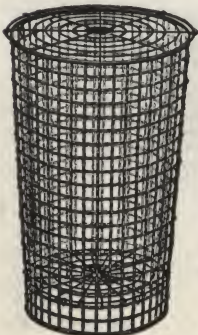
Fig. 5057. Mfrs. 532

Accurate and compact. For postal and express shipments and other general utility weighing on counters or tables. They take up little space. Strong and steady to withstand the impact of rapidly handled packages. **Full capacity arrow-tip beam eliminates the use of loose weights.** Notched top beam bars provide accurate seating of the brass poises. Capacity 75 pounds by 1 ounce. Upper beam, 5 pounds by 1 ounce. Lower beam, 70 pounds by 1 pound. 10-1/2 by 12 inch platform. Finished in black enamel and varnished.

**★ NET EACH, \$24.30**

**STEEL BURNER BASKET 'CYCLONE'**

Fig. 3551



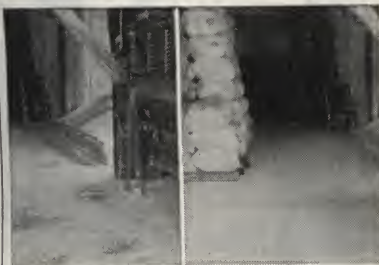
Raised bottom permits draft. 1-1/2 inch mesh keeps burning fragments safely confined. 29 inches high. Width at top, 20 inches. Width at bottom, 16 inches. Weight, including cover 14-1/2 pounds. No. 10 gauge wire. Rigid. Green enameled.

**★ NET EACH**

1 to 5 .....\$2.50  
6 or More ..\$2.00

**KONTAK PREMIXED RESILIENT FLOORING**

**FOR RESURFACING CEMENT, CONCRETE, WOOD, COMPOSITION, BRICK, OR STEEL FLOORS.**



Showing Holes In The Floor      Resurfaced Smooth and Even

Fig. 5082

An easy-to-apply, permanent waterproof flooring or resurfacer. Will withstand heavy loads indefinitely without ridging, breaking, or cracking. This is a premixed material, and is applied by a cold process on flooring, or as a re-flooring on cement, concrete, wood, composition, tile, brick, and steel. It makes a continuous, jointless surface, and bonds perfectly to the subfloor with a vise-like grip, leaving no crevices or openings. It is dustproof and highly fire resistant. Two to three days' drying time is ordinarily required in mild weather and under generally dry conditions. 30 gallons will cover approximately 100 square feet 1/2 inch thick, which is sufficient for heavy duty trucking and service floors.

1 Gallon Pail.★ **NET GALLON, \$1.20**  
5 Gallon Pail.★ **NET GALLON, \$1.10**  
30 Gal. Drum ★ **NET GALLON, \$1.00**

Fig. 5083

**ACID RESISTING SURFACER**

For cement floors only in dairies, packing houses, etc. It highly resists lactic acid and fats. It is quick-hardening, and can be applied in the afternoon, and used the next morning. Not affected by freezing temperatures or moisture. Packed in air-tight steel drums.

50 Lb. Drums ..★ **NET POUND, \$0.11**  
160 Lb. Drums ★ **NET POUND, \$0.10**  
300 Lb. Drums ★ **NET POUND, \$0.09 1/2**  
450 Lb. Drums ★ **NET POUND, \$0.09**

**CONTRACTOR'S CONCRETE MIXER**

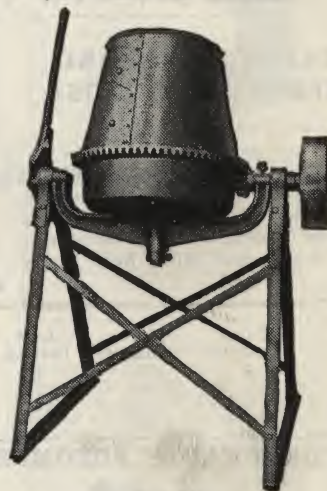


Fig. 3301

Requires a power plant of 1 H. P. or over. Sturdy construction. Capacity 2-1/2 cubic feet (one wheel barrow load). Is capable of pouring from 27 to 45 cubic yards of well mixed concrete a day. May be operated by one man, and will keep four men busy. Easy to load and dump. Thick sheet steel drum. 16 by 22 by 23-1/2 inches. Fast, complete discharge. Discharge height, 19 inches. Loading height, 33 inches. Overall width, 28-1/2 inches. Overall height, 55 inches. Overall length, 43 inches. 1-1/2 inch angle iron frame. Pulley, 12-inch diameter by 3-inch face. Shipping weight, 300 pounds.

**★ NET EACH, \$25.75**

**SWEEPING COMPOUND**

High grade. The best paraffin and cedar oils are used and have a mildly antiseptic action.

★ **NET POUNDS EACH METAL DRUM**  
100 .....\$3.00  
WOOD DRUM  
100 .....\$2.50  
200 .....\$4.90  
300 .....\$6.00



Fig. 3669



## SILVER KING HYDRAULIC JACKS

For Passenger Cars, Trucks,  
Buses, and for Industrial and  
Construction Use

Fig. 4534

Unconditionally guaranteed  
for one year. Leak-proof.  
Operates at all temperatures.  
Jacks the load fast. Easily  
operated, sixty pounds effort  
will raise load. Ram of hard-  
ened, ground, steel. Severe  
service test for 50% overload  
before shipment. Compact,  
sturdy construction with great  
reserve power. Strong, 36  
inch, two-piece handle which  
locks on the pump lever.

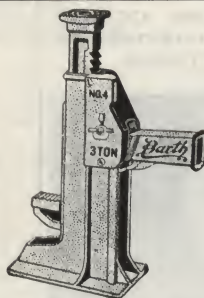


Model No.	Tons Capacity	Weight Pounds	Low Height	Lift Inches	Extension	Total Height	★NET EACH
JM-1.5-S.	1-1/2	9-3/4	6-3/4	5	3	14-3/4	\$3.32
JM-2-ST.	2	12	7-3/4	5-1/4	2	15	\$5.39
T-2.5-S.	2-1/2	16-1/4	8	6	3	17	\$8.72
T-4.5-S.	4-1/2	20	9	5-3/4	2-1/2	17-1/4	\$10.94
T-7-S.	7	24	9	5-1/2	2-1/2	17	\$14.72
HB-7-S.	7	20	8-1/2	10-1/2	2-1/4	21-1/4	\$26.67
T-12-S.	12	38-1/2	10-1/2	6-3/4	3-1/2	20-3/4	\$21.39
LT-12-S.	12	34-1/2	8	5	2-1/2	15-1/2	\$21.39
MT-12-S.	12	37-1/4	9	6	3-1/2	18-1/2	\$21.39
T-20.	20	55	10-3/4	6-3/4	.....	17-1/2	\$33.33
T-30.	30	65	10-3/4	6-3/4	.....	17-1/2	\$50.00
HYDRAULIC CURB JACK—Not Illustrated							
800.....	2	100	3-7/8	15-1/2	.....	19-3/8	\$40.00
1400.....	5	220	5	17	.....	22	\$94.45
Hydraulic Jack Oil .....							★ NET QUART, \$0.70

## BARTH TRUCK AND HEAVY DUTY JACKS

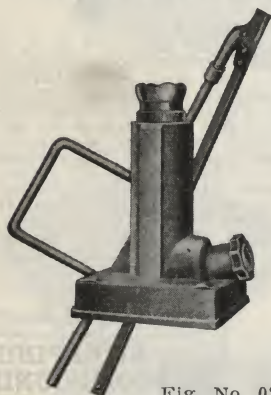
Fig. 1787

Made of high grade malleable iron carefully selected and tested. Operated by an eccentric. For use on trucks, tractors, construction work, and other hard service.



Size No.	Tons Capacity	Low Height	Lift Inches	Weight Pounds	★NET EACH
4	3	14	8	20	\$6.30
19	6	14	7 1/2	29	\$7.80
5	6	18	11	33	\$9.20
6	10	20	12	68	\$20.00

## "DREDNAUT" AUTOMOBILE JACKS



Designed for use with balloon tires. The load is carried directly on telescoping steel cylinders, which prevents tipping, with consequent binding of driving screws when under load. The entire mechanism including the double screws are entirely enclosed, free from dirt and water. Height, 7 in.; lift, 9 3/4 in. Capacity, 2,000 lbs. 48 in. auger type handle. Wt., 9 lbs.

★ NET EACH, \$3.25

Fig. No. 027D

## AJAX STEEL CURB JACK

Fig. 3743. Curb Jack. All sizes of tires. Low 5 1/2 inches. High 17 inches. 52 inch curved handle. Weight, 50 pounds. Capacity, every weight passenger car.

★ NET EACH \$13.00

Fig. 3743  
Mfrs. GJ1

## SIMPLEX 7 1/2-TON TRUCK JACK

The Latest Development in Truck Jacks

Easy  
Lift!

It's  
Mechanically  
Safe!

Guaranteed!



Fig. 5312. Mfrs. 90

It has the ease of life of hydraulic jack PLUS mechanical safety and ruggedness built into every part. It can be used under all types of working conditions. 7-1/2 ton capacity. Height on cap is 10-1/2 inches. Height on shoe, 5-3/4 inches. 7-1/2 inch lift. Weight, 34 pounds.

★ NET EACH, \$14.00

## SIMPLEX TRUCK & BUS JACKS



Fig. No. 2667



Fig. No. 2668

Strong, safe and reliable. Every working part is a steel drop forging, carefully machined. Powerful, quick and easy action. Unconditionally guaranteed for material and workmanship.

Nos. 41, 42 and 43 have an auxiliary shoe.

No. 141 has an attached adjustable shoe.

Nos. 44 and 145 have auxiliary adjustable shoe.

Mfrs. No.	Cap'y Tons	Hgt. In.	Lift In.	Lever Bar	Wt. Lbs.	★ NET EACH
41	1 1/2	9 7/8	6 3/4	14	13	\$ 4.25
141	1 1/2	10	6 5/8	30	15	\$ 4.25
42	2	11 1/2	8	30	17	\$ 5.20
43	3	13	9 1/2	36	18 1/2	\$ 5.85
44	4	13 1/4	9	36	23 3/4	\$ 7.25
145	5	12	7 1/2	36	30	\$10.00

## SIMPLEX MULTI-BALL BEARING JOURNAL JACKS

Fig. 5313



Low in height but high in capacity and efficiency. Modern design. Heat-treated alloy steel forgings. Special bronze nuts. Ball bearings. Large gear ratios. A powerful light, simple, and over-strong jacks. With a chisel pointed, heat-treated steel lever bar.

No.	Capacity Tons	Height Inches	Lift Inches	Weight Pounds	LIST EACH
1510	15	10	5	33	\$25.00
2510	25	10	5-1/2	35	\$36.00
3510	35	10	5-1/2	45	\$55.00
5010	50	10	4-1/2	65	\$95.00

DISCOUNT ..... 20% OFF



## SIMPLEX BALL BEARING SCREW JACKS

Fig. 1785

Requires 88% less manpower than common type as 88% of the friction has been eliminated.

Will not twist out from under a load. The drop-forged, heat-treated steel cap, and the chrome molybdenum ball that rests upon a hardened steel thrust washer reduce friction, reduce wear, reduces breakage and increases the lifting power. These jacks will safely and continuously lift their rated capacity guaranteed.

Lever bars are extra. Forged from high carbon steel and are heat-treated to strengthen and toughen the steel. They are chisel pointed.

Size	Height	Screw	List	Size	Height	Screw	List
Inches	Closed	Rise	Each	Inches	Closed	Rise	Each
Inches	Inches	Inches	Jack	Inches	Inches	Inches	Jack
<b>10 TON CAPACITY</b>				<b>20 TON CAPACITY</b>			
1¼x4	8	2	\$2.90	2x6	10½	3	\$5.25
1¼x6	10	4	\$3.10	2x8	12½	5	\$6.00
1¼x8	12	6	\$3.40	2x10	14½	7	\$6.75
1¼x10	14	8	\$3.80	2x12	16½	9	\$7.50
1¼x12	16	10	\$4.20	2x14	18½	11	\$8.25
Lever Bar ....	LIST, \$0.60			2x16	20½	13	\$9.25
<b>12 TON CAPACITY</b>				Lever Bar ....	LIST, \$1.60		
1½x4	8	2	\$3.25	<b>24 TON CAPACITY</b>			
1½x6	10½	3¾	\$3.75	2½x6	11	3	\$7.75
1½x8	12½	5¾	\$4.25	2½x8	13	4½	\$8.75
1½x10	14½	7¾	\$4.75	2½x10	15	6½	\$9.75
1½x12	16½	9¾	\$5.25	2½x12	17	8½	\$10.75
1½x14	18½	11¾	\$6.00	2½x14	19	10½	\$12.00
Lever Bar ....	LIST, \$0.80			2½x16	21	12½	\$13.25
<b>16 TON CAPACITY</b>				2½x18	20	14½	\$14.50
1¾x6	10½	3¼	\$4.50	Lever Bar ....	LIST, \$2.40		
1¾x8	12½	5½	\$5.00	<b>30 TON CAPACITY</b>			
1¾x10	14½	7½	\$5.75	3x8	13½	3½	\$17.50
1¾x12	16½	9½	\$6.25	3x14	19½	9½	\$19.50
Lever Bar ....	LIST, \$1.00			Lever Bar ....	LIST, \$3.20		
<b>DISCOUNT</b>				<b>DISCOUNT</b>			
{ 1 to 5				{ 1 to 5			
{ 6 or More				{ 6 or More			
				40% OFF			
				45% OFF			

## CAST IRON JACK SCREWS

Fig. 1786

Only superior pig iron is used in the construction of these jack screws.

The screws are cast with seamless threads, which makes them very smooth and uniform.

Diameter of Screw, Inches	Height Over All, Inches	LIST EACH
3	18	\$8.25
3	20	\$8.50
3	22	\$8.75
3	24	\$9.00
3	26	\$9.50

**DISCOUNT** { 1 to 5 ..... 40% OFF  
                  { 6 or More ..... 45% OFF

## SIMPLEX—PUSHING—PULLING—LIFTING—SPREADING—CLAMPING JACKS



Fig. 4588

For pulling together; holding for welding; straightening; spreading; pulling wheels, gears, pinions, or pulleys; lifting as a chain hoist, tightening cables and wires. May be extended by using 1 1/2 inch pipe of the desired length. Forged of steel, and hardened. Screw is steel, S.A.E. 1045, hardened. Prices for body and frame; and maintenance sets on request.

Mfrs. No.	Lgth. of Screw	A Max.	A Min.	B Max.	B Min.	C Max.	C Min.	Wt. Lbs.	LIST EACH
610	10	14	9 1/4	8 3/4	3 1/2	7 1/2	2 3/4	11	\$15.00
612	12	16	9 1/4	10 3/4	3 1/2	9 1/2	2 3/4	12	\$15.50
614	14	18	9 1/4	12 3/4	3 1/2	11 1/2	2 3/4	13	\$16.00
616	16	20	9 1/4	14 3/4	3 1/2	13 1/2	2 3/4	14	\$16.50
618	18	22	9 1/4	16 3/4	3 1/2	15 1/2	2 3/4	15	\$17.00

**Base.** 3-Way for chains. Snaps on jack and creates a wheel, gear or pinion puller; or a lifting jack of 35,000 pounds, or 5,000 pounds on lugs. LIST EACH, \$4.50

**3A Spreader Jack.** 3 inches closed, 5 inches open. Use 1/2 and 1 inch pipe for further extension. LIST EACH ..... \$2.00

**DISCOUNT** ..... 25% OFF

## 5-TON SIMPLEX INDUSTRIAL JACKS



Fig. No. 2669

Automatic in raising and lowering. Particularly adapted for handling mining and agricultural machinery, mine cars, light track and general industrial service. 30 inch chisel-pointed heat-treated steel lever bar.

No. 185. More rugged and faster operating. Double socket and adjustable drop-forged shoe has 4 adjustments.

No.	Ht. Ins.	Lift, Inch	Wt. Lbs.	LIST EACH
84	14	7-1/2	21	\$15.00
85	17	10-1/2	25	\$16.00
185	16-1/2	9-3/4	36	\$17.00
Fig. No. 2669	86	20-1/4	31	\$18.00

## 15-TON ELECTRIFIED SIMPLEX TRACK JACKS

Tripping type. S-Single Acting. D-Double Acting. For track maintenance and construction. Manually operated safety trip. Built with high carbon and alloy steel heat-treated working parts. Large base. Safety lugs underneath caps. The jack housing is hardened by ELECTRIFYING where the toe lift bears, this reduces wear. Square lever sockets and without lever bar. Oval or round sockets and poles, add \$1.00 Net.

No.	Ht. Ins.	Lift, Inch	Wt. Lbs.	LIST EACH
101-D	22-1/2	13	59	\$21.00
106-D	29	18	78	\$27.00
215-S	10-1/2	5	40	\$19.00
216-S	17	8	51	\$19.00
217-S	23	13	59	\$21.00
218-S	29	18	74	\$27.00



Fig. 2673

## SIMPLEX INDUSTRIAL & CAR JACKS



Fig. 2672

Single acting. Automatic raising and lowering. For contractors, bridge builders, riggers, mines, car shops, industrial use, etc. Awarded gold medal for the safety of jacks. Simplified mechanism. Long lasting. Trouble-free. Unbreakable trunnions. Vertical double and triple-toothed pawls—easy in operation and safety. Forged alloy steel heat treated operating parts. No screws and no loose or lost parts. Cadmium plated springs. Reinforced arched inner-ribbed bases. Every Jack is thoroughly tested. Guaranteed to lift its rated capacity through long service. Maximum strength. Minimum weight. Short fulcrum centers. Easy to operate.

S-5-foot steel heat-treated lever bar. O-R-specify oval or round socket and oval or round 6-foot hickory lever poles. O-Oval socket and oval 6-foot hickory lever pole.

No.	Tons Cap'y	Height Inches	Lift, Inch	Wt. Lbs.	LIST EACH
1017-S	10	17	9-3/8	40	\$25.00
22-S	10	21-1/4	12	59	\$25.00
24-O-R	15	23-3/4	13	86	\$38.00
29-O-R	15	28-1/2	19	98	\$40.00
2029-O	20	28-1/2	18	100	\$45.00

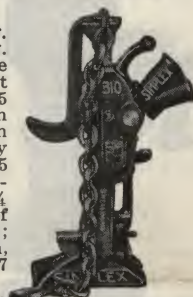
## 310 SIMPLEX EMERGENCY JACK

Fig. 2671



Single-acting. For emergency. Pivots on its base and operates at any angle. With 5 foot steel pinch bar, 5 feet chain and steel auxiliary shoe. Capacity, 15 tons. Lift, 13 inches. Height, 22 1/2 inches. Weight of Jack, 66 pounds; Weight of Chain, Bar and Shoe, 37 pounds.

LIST ..... \$48.00



**DISCOUNT, Above Jacks..... 20% OFF**



**JOYCE PLAIN LEVER MINE JACKS****2 TO 15 TONS CAPACITY**

Fig. 5058

The simplest jack made. NO springs or small parts to get out of order. Used extensively for mine work because coal dust and mine water will not interfere with working parts. The No. 4-F jack is used extensively for supporting trailer trucks. With steel lever.



Size No.	Cap'y Tons	Height Inch	Rise Inch	Weight Pounds	LIST EACH
1-AM	2	16	8	28	\$12.00
2-AM	3	18	10	30	\$12.00
4-AM	4	19	10	39	\$15.00
4-F	4	36	30	55	\$34.00
4-M	5	22	13	46	\$17.00
10-AM	10	23	12	66	\$24.00
10	10	27	16	76	\$24.00
6	15	27	14	95	\$30.00

**DISCOUNT ..... 15% OFF****JOYCE JOURNAL BALL BEARING SCREW JACKS****15 to 50 TONS CAPACITY**

Fig. 5059

Used for industrial service, bridge work, etc. where a short powerful lift is required. Raising or lowering is controlled by the ratchet screw mechanism. A stop marker warns the operator from driving the ram out beyond the screw safety limit. With steel lever bar.

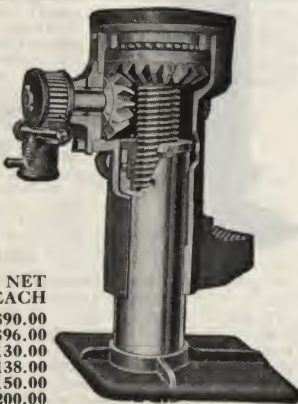


Jack No.	Capacity Tons	Height Inches	Rise Inches	Weight Pounds	★NET EACH
<b>MALLEABLE IRON FRAME</b>					
1015	15	10	5	36	\$25.00
1025	25	10	5	36	\$36.00
151-B	25	14	8	25	\$45.00
1035	35	10	5	42	\$55.00
153-J	50	10	4-1/4	69	\$95.00
<b>ALUMINUM ALLOY FRAME AND BASE</b>					
1015-A	15	10	5	25	\$32.00
1025-A	25	10	5	25	\$45.00
1035-A	35	10	5	35	\$65.00

**JOYCE BALL BEARING GEARED SCREW JACKS****25 TO 75 TONS**

Fig. 5060

Plain Ball Bearing. Standard speed. For heavy contracting work, industrial work, etc. NOT affected by weather conditions or rough handling. Raising or lowering is controlled by the ratchet screw mechanism.



Cap'y Tons	Height Inch	Rise Inch	Weight Pounds	★ NET EACH
25	22	12	119	\$90.00
25	26	16	133	\$96.00
35	22	12	180	\$130.00
35	27	17	208	\$138.00
50	26	16	230	\$150.00
75	27	16	380	\$200.00

**JOYCE SELF LOWERING GEARED SCREW JACKS****50 TO 100 TONS**

Fig. 5061

High Speed. Upright type. For heavy lifting. A high pitch main screw makes this jack self-lowering. This lowering is controlled by a chain of worm gears and a brake device. Used by contractors, bridge builders, factories, and many others.



Cap'y Tons	Ht. In.	Rise In.	Wt. Lbs.	★NET EACH
50	24	13	270	\$210.00 \$225.00
50	26	15	280	\$210.00 \$225.00
75	24	10	250	\$285.00 \$305.00
75	26	12	350	\$285.00 \$305.00
100	26	12	398	\$310.00

**SIMPLEX DROP FORGED STEEL TRENCH BRACES****UNBREAKABLE! UNBENDABLE!**

These drop forged trench braces can be used over and over again, and cost NO MORE than malleable braces.

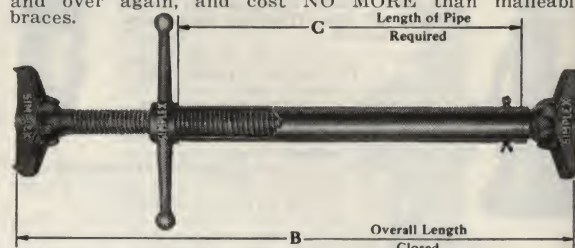
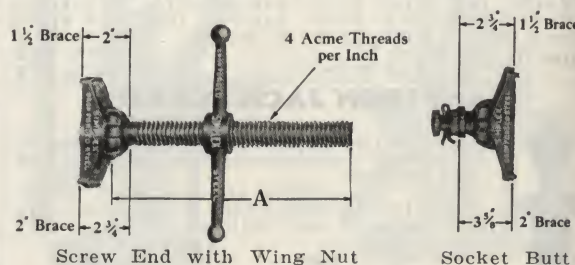


Fig. 5062

**TRENCH AND SEWER BRACES—With Pipe**

No.	Pipe and Screw Diam. Inch	"A" Length of Screw Inch	"B" Brace Length Closed Inch	"C" Length of Pipe Inch	Safe Extension, Screw Inch	Weight with Pipe, Dozen Pound	LIST DOZEN With Pipe
1	1-1/2	10	16	8-1/2	6	190	\$46.00
2	1-1/2	12	18	10-1/2	7	198	\$46.00
3	1-1/2	14	21	13-1/2	9	215	\$48.00
4	1-1/2	14	24	16-1/2	9	224	\$48.00
5	1-1/2	16	27	19-1/2	10	240	\$52.00
6	1-1/2	16	30	22-1/2	10	246	\$52.00
7	1-1/2	18	36	28-1/2	11	270	\$54.00
8	1-1/2	18	42	34-1/2	11	285	\$56.00
9	1-1/2	18	48	40-1/2	10	300	\$58.00
10	2	18	36	26	10	517	\$102.00
11	2	18	42	32	10	538	\$104.00
12	2	18	48	38	10	560	\$106.00
13	2	18	54	44	10	590	\$108.00
14	2	18	60	50	10	604	\$110.00



Screw End with Wing Nut

Socket Butt

Fig. 5063

**TRENCH BRACE FITTINGS—Without Pipe**

No.	Diam. Screw Inch	Length of Screw Inch	Safe Extension Inch	Weight Pounds Dozen	Complete LIST DOZEN	Screw Ends Only LIST DOZEN	Socket Butts Only LIST DOZEN
15	1-1/2	10	6	165	\$40.00	\$30.00	\$10.00
16	1-1/2	12	7	175	\$40.00	\$30.00	\$10.00
17	1-1/2	14	9	180	\$42.00	\$32.00	\$10.00
18	1-1/2	16	10	190	\$44.00	\$34.00	\$10.00
19	1-1/2	18	11	196	\$46.00	\$36.00	\$10.00
20	2	18	10	415	\$90.00	\$66.00	\$24.00

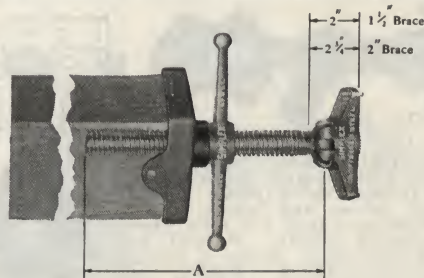


Fig. 5064

**TIMBER BRACE FITTINGS**

Complete with cap. NO Timber. For wide trenches.

Diam. of Screw Inches	"A" Length of Screw Inches	Size of Timber Caps Inches	Weight, Dozen Pounds	LIST DOZEN SETS	Timber Caps Only LIST DOZEN
1-1/2	14	4 x 4	170	\$47.00	\$15.00
1-1/2	14	6 x 6	185	\$52.00	\$20.00
1-1/2	18	6 x 6	205	\$56.00	\$20.00
2	18	6 x 6	375	\$86.00	\$20.00
2	18	8 x 8	385	\$96.00	\$30.00

**DISCOUNT ..... 40-10% OFF**



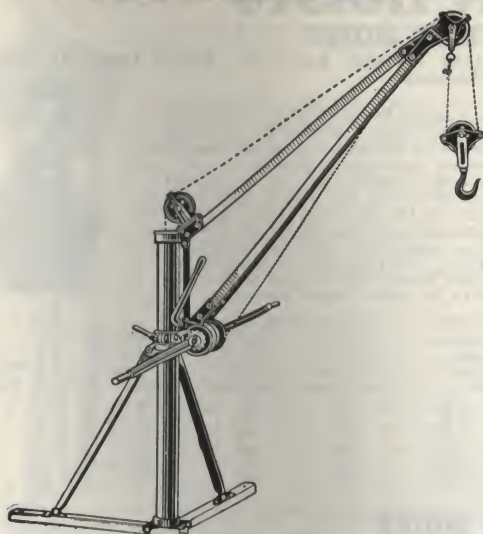
**FULL CIRCLE DERRICK**

Fig. No. 2675

Very practical for hoisting flooring, joists, wheelbarrows on two and three story buildings.

Steel construction, malleable fittings. Self-lubricating bushings, load and boom brake. Boom can be removed in a few seconds. Bottom sills and mast fold together, making it in two parts, compact enough so that a contractor can haul it to jobs in his auto. Capacity, 1,000 lbs., weighs only 225 lbs. Can be operated by hand, horse or power. Height, 7½ feet; boom extends 5 ft. Drum holds 135 feet of cable. Equipped with 110 ft. crucible steel cable, block, cleats and bolts for fastening, complete ready for work.

HAND POWER ..... ★ NET EACH, \$70.20  
HAND AND POWER ..... ★ NET EACH, \$72.00  
Extra cable ..... ★ Net Foot, \$0.10

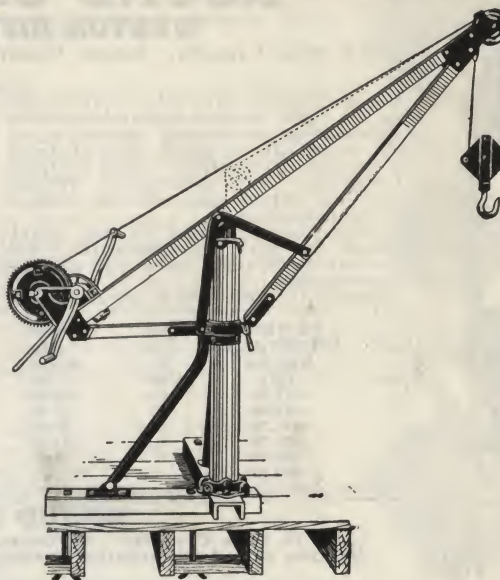
**STANDARD CIRCLE SWING DERRICK**

Fig. No. 2676

Built of all steel, fittings malleable. Has boom and load brake and is built so that the boom can be quickly detached. Mast folds to bottom sills, making it easy to take apart or set up. For hoisting loads 1,500 to 2,500 lbs. by hand or power has few equals. Capacity 2,500 lbs., weight 425 lbs., height 8 ft., swing 8 ft. Drum hose 275 ft. equipped with geared winch, 150 ft., ¾ in. steel cable, block, cleats for fastening, complete, ready for use.

HAND POWER ..... ★ NET EACH, \$106.50  
HAND AND POWER ..... ★ NET EACH, \$111.30  
Extra cable ..... ★ Net Foot, \$0.11

**POLE DERRICKS**

Size 6x6, Capacity 2,500 to 3,500 Pounds



Used by contractors, builders, stone and iron setters, setting trusses, timbers, girders, heavy joists, columns, stone, iron beams, etc. Equipped with a crucible steel top sheave frame, which acts as a block, and extends in the front, so the load can be hoisted without scraping pole. Lugs for guy lines and sheave in back to bring cable to hoisting drum. Bottom sill is equipped with rollers, well braced to pole. Complete with No. 110 geared winch, 125 feet steel cable and block.

Fig. No. 2674

Feet	★ NET EACH
18 .....	\$83.50
20 .....	\$85.90
22 .....	\$88.30

For additional lengths add \$0.82½ each foot.

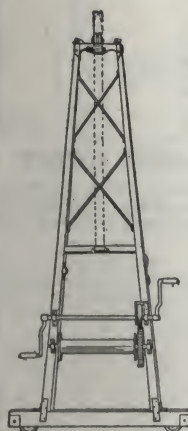
**IMPROVED SETTER DERRICKS****Regular Style**

Fig. No. 2677

easily if necessary. Gears are malleable.

Capacity Pounds	Length Feet	★ NET EACH
4,000	18	\$99.20
4,000	20	\$101.60
4,000	22	\$106.50

For longer lengths add \$3.30 foot up to 26 feet; for greater capacity add \$11.00 each 1,000 pounds up to 3 tons.

Fish tackle to swing derrick out and in, containing 5 blocks and 50 feet ¾ inch rope.

★ NET EACH, \$10.25  
Blocks only.....★ NET EACH, \$6.60

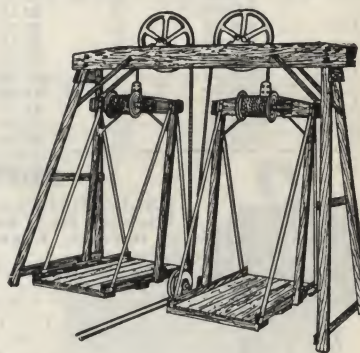
**MATERIAL ELEVATOR****Double or Single Cage**

Fig. No. 2678

Cages are built of oak wood and well braced with iron rods. The truss beam is oak wood firmly bolted together, provided with suitable sheaves mounted on steel shafts, equipped with malleable iron boxes.

**Without Guides**

	★ NET EACH
Double Cage 3 ft. x 5 ft. x 6 ft. ....	\$154.80
Double Cage 44 in. x 6 ft. ....	\$166.90
Single Cage 4 ft. x 6 ft. ....	\$114.90

**Fittings for Elevators**

Brake attached for horse power .....Net Extra, \$30.25  
¾ in. diameter cable for hoist line.....Net per foot, \$0.11  
Guides..... Net Lineal Foot, \$0.33



# ROUND CHAIN HOISTS

## WESTON DIFFERENTIAL HOIST

**½ to 3 Tons Capacity. Simple Construction. Light Weight. Low Cost. Every Hoist Is Tested Before Shipment**

Fig. 1801

Recommended for all applications where a light weight portable hoist is required for occasional handling of light loads. It is easily shifted from one location to another and is entirely satisfactory for infrequent lifting where speed and ease are not important considerations.

It will hold its load at any point without the aid of the operator. All parts are accurately made and are interchangeable.

Electrically welded steel chain,

highly polished brass plated. All tested by manufacturer. Stronger by 20% than chain ordinarily found in hoists of a similar type and capacity.

Semi-steel sheaves are of a special analysis, made by the latest approved methods. Both the top and bottom hooks are drop forged steel and tested. Malleable yokes for greater strength and safety. Bearing pins are made of cold rolled steel. Each hoist is packed separately in wire bound boxes.



Capacity, Tons	★ NET COMPLETE Regular Lift	Reg. Lift in Feet	*Extra Lift ★Net Foot	Distance Between Hooks, Regular Lift	Chain Pull to Lift, Full Load in Pounds	Feet of Chain Handled to Lift Load One Foot	Endless Chain Size Inches by Feet	Net Weight, Pounds
¼	\$11.80	6	\$1.60	1' 5" to 7' 5"	72	18	1¼ by 22	22
½	\$13.80	7	\$1.60	1' 9" to 8' 9"	122	24	1¼ by 26	29
1	\$18.50	8	\$1.65	2' 2" to 10' 2"	216	30	1½ by 30	52
1½	\$23.70	8½	\$1.80	2' 8" to 11' 2"	246	36	1½ by 33	78
2	\$29.70	9	\$1.90	3' 3" to 12' 3"	308	42	1½ by 36	125
3	\$39.60	10	\$2.00	3' 8" to 13' 8"	557	38	1½ by 38	174

\*Each foot of extra hoist includes four feet of chain.

## ROUND SCREW HOIST

**½ to 10 Tons Capacity. A simple, sturdy block operating on the worm and gear principle. Medium priced. Guarantee of complete satisfaction or a new hoist**

Fig. 1800

For outdoor or indoor service in all kinds of weather. For various jobs of lifting and pulling. Easily moved. Can be operated horizontally in moving loads on rollers or skids. Operates smoothly, simply, easily and holds its load at any point. Practically vibrationless. Requires little care.

Cut steel worm screw. Thrust screw is instantly adjustable for fast or slow speed in lowering. Bronze worm gear. Load wheels are reversible, when the pockets become worn double service can be obtained

by using the good end of the pockets.

Two strands of chain carry the load, each having sufficient strength to carry the full rated capacity of the hoist. Chain is accurately formed, electrically welded, made of special analysis steel, heat-treated and tested.

Swivel type load hook, drop forged steel, heat treated. Hand chain guide permits operator to stand clear of the load. Worm screw and worm gear operate in a bath of graphite grease. Gear case is oil-tight and dust-proof.



Capacity, Tons	★ NET COMPLETE Regular Lift	Regular Lift in Feet	Extra Hoist ★Net Foot of Lift	Distance Between Hooks, Regular Lift	Chain Pull to Lift, Full Load in Pounds	Feet of Chain Handled to Lift Load One Foot	Load Chain Size Inches by Feet	Net Weight, Pounds
½	\$47.50	8	\$2.35	1' 5" to 9' 5"	49	60.5	1¼ by 18	68
1	\$57.00	8	\$2.45	1' 6" to 9' 6"	71	76.0	1½ by 18	75
1½	\$76.00	8	\$2.55	1' 7" to 9' 7"	99	89.5	1½ by 18	106
2	\$95.00	9	\$2.65	1' 10" to 10' 10"	129	98.0	1½ by 20	160
3	\$142.50	10	\$2.85	2' 6" to 12' 6"	163	98.0	1½ by 23	247
4	\$180.50	10	\$3.00	2' 8" to 12' 8"	190	128.0	1½ by 24	325
5	\$266.00	12	\$4.00	3' 3" to 15' 3"	293	106.5	1½ by 28	484
6	\$342.00	12	\$4.55	3' 3" to 15' 3"	293	110.0	1½ by 28	554
8	\$399.00	12	\$5.90	3' 5" to 15' 5"	403	110.0	1½ by 28	739
10	\$522.50	12	\$5.90	3' 11" to 15' 11"	358	198.0	1½ by 28	789

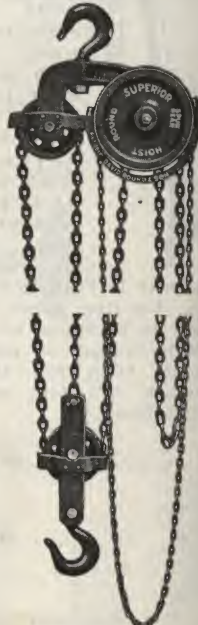
## SUPERIOR SPUR-GEARED HOIST

**BALL-BEARING. ½ Ton to 20 Tons Capacity. Steel carries the load. Strength from hook to hook. Perfect fitting chain. Speedy. Safe. Easy to Operate. Every hoist is tested to 50% overload. GUARANTEED FOR ONE YEAR**

Speedy and easy for handling heavy materials. Economical. Planetary system of gear arrangement. Balanced train of gears. Holds load at any point. Electrically welded load chain of special analysis steel, heat-treated and tested. One-piece solid steel load wheel and shaft. Both sides of the load wheel are fitted with high carbon chrome alloy steel ball bearings of the radial thrust type.



Steel suspension plates. One piece steel forged driving pinion and shaft. Solid steel gears and pinions, cut teeth, bronze bearings. Hand chain guide, positively prevents hand chain from sticking. Operator can spin hand chain at any speed. Drop forged steel lower swivel hook, top hook and cross head. Hoist will swivel and rock. Gears operate in a continuous grease bath.



Capacity, Tons	★ NET COMPLETE Regular Lift	Regular Lift in Feet	Extra Lift ★Net Foot	Distance Between Hooks, Regular Lift	Chain Pull to Lift, Full Load in Pounds	Strands of Chain Load Hand	Net Weight, Pounds
½	\$56.00	8	\$1.45	1' to 9'	57	1 2	65
1	\$72.00	8	\$1.50	1' 3½" to 9' 3½"	77	1 2	96
1½	\$96.00	8	\$1.60	1' 5" to 9' 5"	103	1 2	141
2	\$112.00	9	\$1.70	1' 9" to 10' 9"	112	1 2	206
3(SLC)	\$144.00	10	\$2.40	1' 11½" to 11' 11½"	103	1 2	267
4	\$144.00	10	\$2.40	2' 6" to 12' 6"	107	2 2	216
5	\$176.00	10	\$2.55	2' 10" to 12' 10"	116	2 2	306
6	\$244.00	12	\$3.45	3' 2" to 15' 2"	102	3 2	432
8	\$264.00	12	\$3.45	3' 2" to 15' 2"	122	3 2	432
10	\$320.00	12	\$4.30	3' 8" to 15' 8"	128	4 2	534
12, 16 and 20-ton sizes have two unit blocks. Prices and information upon request.	\$384.00	12	\$5.20	4' 2" to 16' 2"	132	5 2	680

Fig. 1927  
½ to 3 Tons

5 to 10 Tons



## ROUND AUTO-BLOC HOISTS

1/2 to 20 Tons Capacity. The Hoist of Today—Light Weight—Heavy Duty—Revolutionary Design—Timken and Ball Bearing.

Fig. 5065

An easy-lifting fast operating block. Only two gears are required in this advanced hoist mechanism, replacing the six gears and pinion cage necessary in the older planetary type. Weight and bulk have been reduced; higher grade steels, precision construction and anti-friction bearings have increased safety, durability and ease of operation.

The simple fundamental gearing—known as the helicoid type—provides the high gear ratio of worm gearing (for maximum ease of operation) with the high speed of spur gearing, and operates with less frictional loss than either type. Precision bearings at every bearing surface reduce remaining friction to the absolute minimum.

All parts are machined to precision

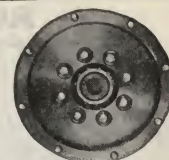
standards. Gears are drop-forged from chrome manganese steel and are hardened and ground. Timken tapered roller bearings support the cam shaft. Ball bearings serve the load wheel shaft and other bearing surfaces. Timken thrust bearing in lower hook permits easy swiveling when the hoist is supporting the load. Drop forged heat treated steel hooks. The lower swivel hook is detachable. The load sheave may be reversed when worn. Hand and load chain is highest quality, electrically welded steel. Positive brake, will hold at any point.

### EFFICIENCY RATINGS

Average Differential Hoist .....30%  
Average Screw Hoist .....40%  
Average Spur Geared Hoist 78 to 83%  
Round Auto-Bloc .....90%

†Extra Lift includes both hand and load chain.  
\*For each hand chain. Two hand chains.

Capacity in Tons	LIST EACH Hoist Reg-ular Lift	Reg-ular Lift in Feet	Shortest Dist-ance Between Hooks in Feet	Maximum Reach Between Hooks in Feet	Chain Pull to Full Load in Pounds	Chain Overhaul to Lift one Foot in Feet	Overall Length (horiz-ontal parallel to hand) in Feet	Overall Width (Per pen-dicular to hand) in Feet	Strands of Load Chain	Size of Load Chain in Inch	Size of Hand Chain in Inch	Lgth. of Load Chain in Feet	Lgth. of Hand Chain in Feet	Net Weight in Pounds
1/2	\$70.00	8	\$1.80	14-1/4	9	2-1/4	50	21	11	11-1/2	9-1/4	1	2	52
1	\$90.00	8	\$1.90	17	9	5	70	31	6	12-1/2	10-1/2	1	2	76
1-1/2	\$120.00	8	\$2.00	20	9	8	82	40	15	12	12	1	2	105
2	\$140.00	9	\$2.10	23	10	11	93	47	9	18	14	1	2	130
3SLC	\$180.00	10	\$2.60	23-1/2	11	11-1/2	118	60	18	17	13-3/4	1	2	157
3	\$180.00	10	\$3.00	26-1/2	12	2-1/2	88	81	9	17	13	2	2	167
4	\$220.00	10	\$3.20	29	12	5	102	94	20	14	14	2	2	214
5	\$280.00	12	\$4.30	34	14	10	88	143	6	25	14	2	2	302
5DLC	\$280.00	12	\$4.20	29	14	5	77	175	6	23	14	3	2	277
6	\$330.00	12	\$4.30	34	14	10	104	143	6	25	14	2	2	314
6DLC	\$330.00	12	\$4.20	29	14	5	92	175	6	23	14	3	2	277
8	\$400.00	12	\$5.40	37-1/2	15	1-1/2	107	189	4	25	14	4	2	395
10	\$480.00	12	\$6.50	42	15	6	122	221	27	14	14	5	2	482
12	\$600.00	12	\$8.60	43	15	7	105	*143	40	20	20	6	4	698
16	\$720.00	12	\$10.80	48	16		*110	*189	44	20	20	8	4	845
20	\$850.00	12	\$13.00	51	16	3	*122	*221	46-1/2	20	20	10	4	1,032
DISCOUNT .....14% OFF														



Outer cover, 8 hardened steel balls in recesses.



Cam-Actuated Floating Gear.



## LITTLE WIZARD SPEED CHAIN HOIST

Fig. 4367

Lifts easy. Double roller bearings in top sheave and single roller bearings in bottom sheave carry the load and reduce friction to minimum. Load is handled with half the usual effort. ONE MAN CAN LIFT CAPACITY LOAD.

Light weight. Easy to handle and move. Safe to carry on ladder. Modern. Fast. Easy lifting. Sturdy construction. Positive internal safety ratchet sustains the load at any point. Top and bottom sheaves are lubricated to all load bearing surfaces by the Alemite Zerk pressure system. Has an efficiency of about 55%.

1/2 TON CAPACITY. 7 foot regular lift. 20 inches to 8 feet inch between hooks. 72 pound full load chain pull. 15/16 inch by 26 feet endless chain. 31 pounds net.

**\*NET EACH, \$18.00**

1 TON CAPACITY. 8 foot regular lift. 25 inches to 10 feet 1 inch between hooks. 112 pound full load chain pull. 5/8 inch by 30 feet endless chain. 52 pounds net.

**\*NET EACH, \$24.00**

## ROUND ARMY TYPE TROLLEY HOIST

1/4 to 10 Tons Capacity. Timken Bearing equipped. For use where head-room is limited and lifting to the maximum height is desired.

This unit embodies the high efficiency Auto-Bloc hoisting mechanism and the Round Steel Plate Trolley. Both hoist and trolley are Timken bearing equipped. Lower Swivel Hooks are fitted with Timken Roller thrust bearings. Trolley may be either plain or geared type. The geared type is recommended for capacities of 3 tons and over and accurate stopping. Prices on request. Size of I-beam must be specified. The 'Chain-in-Pull' and 'Chain Overhaul' are the same as the Auto-Bloc hoists shown above for like capacities.

SLC—Single Load Chain Hoist.  
DLC—Double Load Chain Hoist.

### LIST EACH—PLAIN TROLLEY

Capacity Tons	LIST EACH	Regular Lift, Feet	List Foot of Extra Lift	Standard Size of I-Beam	Minimum Bottom of I-Beam to Inside Lower Hook
1/4	\$117.00	8	\$1.80	5	8-1/2
1/2	\$117.00	8	\$1.80	5	8-1/2
1	\$149.00	8	\$1.90	6	10-1/2
1-1/2	\$190.00	8	\$2.00	7	12
2	\$221.00	9	\$2.10	8	14
3SLC	\$250.00	10	\$2.60	9	16-3/4
4	\$339.00	10	\$3.20	10	22
5DLC	\$433.00	12	\$4.20	12	22
6DLC	\$535.00	12	\$4.20	12	22
8	\$735.00	12	\$5.40	15	35
10	\$940.00	12	\$6.50	15	39
DISCOUNT .....14% OFF					

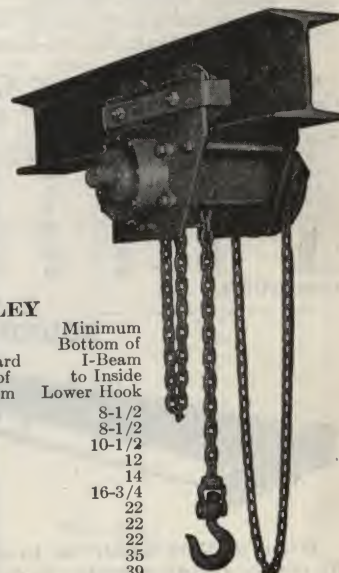


Fig. 5066



ROUND SELF-ALIGNING STEEL PLATE TROLLEYS

BALL-ROLLER-OR TIMKEN ROLLER BEARINGS. CLOSE HEAD ROOM. EFFICIENT.

For use on straight or curved I-beams of short radius. The trolley halves are connected by a heavy steel removable equalizing pin forming a flexible self-adjusting, non-rigid, carrier providing equal distribution of load, with the lines of force centering at the point of suspension in the eye. Wheel tread is at right angles to the I-beam flanges. Trolley may be placed on I-beam at any point. Sturdy all-steel construction. Lubricated with Alemite fittings. The Geared Type is recommended for use in connection with loads of 3 tons or more, or where the load has to be exactly placed. Sizes 1/4 to 2 tons are furnished with ball bearings, unless roller bearings are specified. Sizes 3 tons and larger are furnished with roller bearings, unless ball bearings are specified.



Fig. 5164

Plain or Push Type

Cap'y Tons	LIST EACH Plain	LIST EACH Geared	Adjustable For Std. I-Beams	Small-est Radius Curve	Net Lbs. Plain	Net Pounds Geared
1/4	\$28.00	.....	4, 5, 6, 7	17	19	....
1/2	\$30.00	.....	5, 6, 7, 8	19	24	....
1	\$35.00	\$70.00	6, 7, 8	21	45	78
1-1/2	\$45.00	\$87.00	7, 8, 10	28	65	100
2	\$58.00	\$105.00	8, 10, 12	33	78	127
3	\$75.00	\$130.00	10, 12, 15	40	105	150
4	\$103.00	\$168.00	10, 12, 15, 18	45	115	164
5	\$133.00	\$200.00	12, 15, 18, 20	49	254	352
6	\$170.00	\$255.00	12, 15, 18, 20	54	305	370
8	\$225.00	\$350.00	15, 18, 20, 24	60	360	430
10	\$320.00	\$440.00	15, 18, 20, 24	60	507	575
12	\$345.00	\$450.00	15, 18, 20, 24	72	530	605
16	\$490.00	\$615.00	Specify size	90	750	850
20	\$575.00	\$720.00	Specify size	108	960	1080
25	\$600.00	\$780.00	Specify size	...	1245	1425
30	\$820.00	\$910.00	Specify size	...	1780	2050
40	\$940.00	\$1040.00	Specify size	...	2200	2685

DISCOUNT { Ball-Bearing ... 45-5% OFF  
Timken Bearing ... 30% OFF

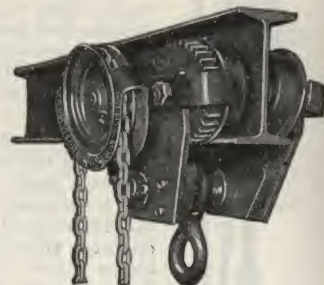


Fig. 5165

Geared Type

RICHARDS-WILCOX BALL-BEARING I-BEAM TROLLEYS

EACH TROLLEY IS ADJUSTABLE TO THREE SIZES OF I-BEAMS

Exceptionally easy operating. High test malleable iron side plates and yoke. Wheels of hard grey iron with treads crowned to give minimum friction and chilled to give maximum hardness and minimum wear. Short wheel base operates easily on curves. Combination radial and thrust bearings, ball races are ground. High duty AA grade chrome alloy steel balls. Felt washers keep bearings clean and aid in lubrication. Designed for even distribution of load on all four wheels under all conditions. Bumpers on the end of the frame sides prevents trolleys from damaging wheel flanges when running together.

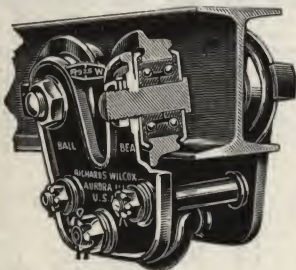


Fig. 5068

No. Tons	* Standard Size of I-Beams, Inches	** Width Overall, Inches	Length Overall, Inches	Clearance Below I-Beam, Inches	Distance Bottom of I-Beam to Yoke, Inches	Pull Required to Start Full Load, Pounds	Weight Pounds	LIST EACH
925-1/4	4, 5, 6	6-1/4	8-1/4	3/4	3	10	22	\$46.00
925-1/2	5, 6, 7	7-1/2	10-1/4	1	3-1/2	17	38	\$54.00
925-1	6, 7, 8	8	12-1/4	1-1/4	4	37	62	\$67.00
925-1-1/2	7, 8, 9	9-1/2	14-1/2	1-1/4	4-1/2	45	84	\$85.00
925-2	8, 9, 10	10-1/4	16-3/4	1-1/4	5	50	116	\$102.00
925-3	9, 10, 12	11-1/4	19	1-1/4	5-1/2	75	170	\$136.00
925-4	10, 12, 15	12-1/4	21	1-1/4	6	95	210	\$169.00

\*Trolley can be furnished to run on a larger size I-Beam at \$3.00 NET.

\*\*The width overall is for the smallest I-Beam size listed, add 11/32 for each larger size I-Beam.

DISCOUNT ..... 45% OFF

CURTIS ROLLER BEARING EASY-RUNNING I-BEAM TROLLEYS

Adjustable-spread, load equalizing frames. These trolleys run easy as they have large, inclined wheels free from tread friction, flexible, anti-friction roller bearings, load-equalizing side frames, and proper shaped anti-climbing wheel flanges for easily rounding curves. Self-oiling bearings. Built durably throughout. The side frames are made of certified malleable iron or steel with a large factor of safety. Loose parts are securely locked. The load is always equally distributed on four wheels.

Non-geared trolleys are recommended when one man can push the required load. Gearing trolleys are recommended where the pull is great and where the load is to be accurately moved through short distances.

\*Specify size beam for 500-pound trolley as this size is non-adjustable.

Capacity Pounds	—NON-GEARED—				—GEARED—		
	Minimum I-Beam Inches	Maximum I-Beam Inches	Least Radius Feet	Traction % of Cap'y	Net Pounds	LIST EACH	Traction % of Cap'y
*500	3	9	2	.....	7-1/4	\$18.50	.....
1,000	5	10	3	2.00	20	\$39.50	.....
2,000	6	15	3	1.75	30	\$45.50	.....
3,000	7	18	4	1.50	45	\$62.00	.60
4,000	8	18	4	1.30	60	\$66.00	.50
6,000	9	20	6	1.05	110	\$115.00	.50
8,000	10	24	8	0.95	115	\$124.00	.50
12,000	12	24	8	0.85	250	\$266.00	.50
20,000	15	24	10	0.70	450	\$460.00	.50

DISCOUNT ..... 50% OFF

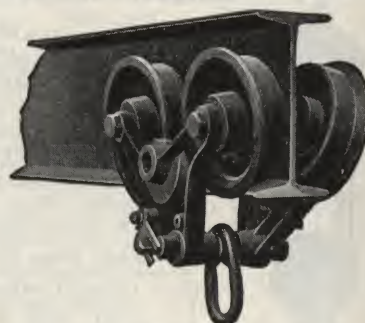


Fig. 5069

ROUND HAND OR ELECTRIC TRAVELING CRANES



Fig. 5067

The Single Beam Crane is designed to operate on T rails—can also be furnished with wheels to operate on channels, or top or bottom flanges of I-beam track. Construction features include structural steel end trucks—lighter and stronger than cast frames; all truck wheels fitted with Timken Roller Bearings; squaring shaft of cold rolled steel and geared to wheel in each end truck; patented chain guide to prevent chain from gagging or sticking. Other types are the: Double Beam; Single Beam Underhung; and Double Beam Underhung. (Geared or Push Type).

When making inquiry as to price please furnish the following information: maximum load to be handled by crane; distance center to center of runway track; distance from wall to center of track; distance from ceiling to top of track; distance from top of track to floor, whether or not hoist and trolley is required.



# RICHARDS-WILCOX INDUSTRIAL TRUCK SYSTEM

**It Reduces Handling Costs and is Easy to Install**



An Industrial Track and Trolley Installation will save Time in Handling Materials throughout your Plant and will reduce your Labor Costs.

The Track and Trolley System is indispensable in a machine shop.

Illustrating how the Track and Trolley System moves small castings quickly.



## INDUSTRIAL TROLLEY TRACK

In Lengths Up to 12 Feet



Fig. 5347. Straight Trolley Track



Fig. 5348. Curved Trolley Track



Cross Section of Industrial Trolley Track

### LIST FOOT TROLLEY TRACK

Size No.	Inside Width Inches	Inside Height Inches	Gauge	Capacity Lbs.	Wt. Ft. Lbs.	Fig. 5347 LIST FOOT	Fig. 5348 LIST FOOT
75	1-3/4	2-1/4	14	500	2	\$0.41	\$2.90
175	2-5/8	3-1/4	13	2000	4	\$0.99	\$4.60
375	2-5/8	3-1/4	10	3000	5-3/4	\$1.35	\$5.00

Track can be galvanized, add 25% to price.

**DISCOUNT** ..... 45% OFF

## TROLLEY TRACK TONGUE SWITCHES

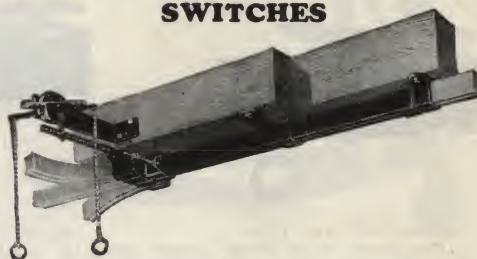


Fig. 5349. Illustrating 3-WAY Switch

With sliding tongue mechanism and are simplified in construction to reduce maintenance. Switch brackets are provided with dowels which are set into holes punched in the top of each connecting track. Switch mechanism is made adjustable so that the end of the switch tongue will line up with the connecting tracks. Latching mechanism holds the tongue positive.

Size Number	For Trolley Track Size	Wt. Pounds	LIST EACH
931-75-2 WAY	75	65	\$32.00
931-75-3 WAY	75	70	\$49.00
933-175-2 WAY	175	90	\$39.00
933-175-3 WAY	175	96	\$57.00
933-375-2 WAY	375	98	\$39.00
933-375-3 WAY	375	106	\$57.00

**DISCOUNT** ..... 45% OFF

## INDUSTRIAL TROLLEY TRACK BRACKETS

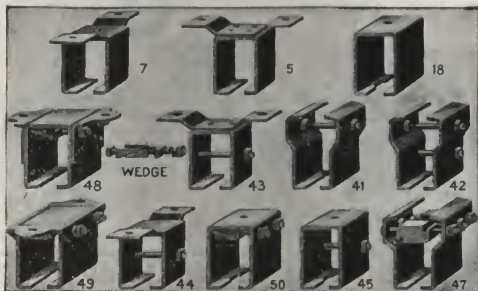


Fig. 5350

Size No.	Weight Pounds	BLACK LIST EACH	GALVANIZED LIST EACH	Size No.	Weight Pounds	BLACK LIST EACH	GALVANIZED LIST EACH
<b>Brackets For Size 75 Track</b>				<b>Brackets For Size 175 and 375 Track</b>			
5x75	1-1/2	\$0.37	\$0.46	5x175=375	4	\$1.36	\$1.70
7x75	1	\$0.37	\$0.46	7x175=375	4	\$1.36	\$1.70
18x75	1-1/2	\$0.37	\$0.46	18x175=375	4-1/2	\$1.36	\$1.70
41x75	2	\$1.48	\$1.85	41x175=375	5	\$2.40	\$3.00
42x75	2-1/4	\$1.62	\$2.03	42x175=375	5-1/2	\$2.55	\$3.20
43x75	1-1/2	\$0.84	\$1.05	43x175=375	4-1/2	\$1.68	\$2.10
44x75	1-1/2	\$0.84	\$1.05	44x175=375	4-1/2	\$1.68	\$2.10
45x75	1-1/2	\$0.84	\$1.05	45x175=375	4-1/2	\$1.48	\$1.85
47x75	3	\$4.20	\$5.25	47x175=375	8	\$5.60	\$7.00
48x75	4	\$3.10	\$3.88	48x175=375	8	\$4.70	\$5.88
49x75	4	\$3.10	\$3.88	49x175=375	8	\$5.60	\$7.00
50x75	3	\$1.48	\$1.85	50x175=375	6-1/2	\$3.10	\$3.88

**DISCOUNT** ..... 45% OFF

### BRACKET SPACING

Table shows spacing of brackets for continuous and heavy service according to the load and size of carrier used.

**WEDGE JOINT BRACKETS MUST BE USED AT EVERY JOINT.**  
Load On 4 Wheel 8 Wheel 16 Wheel  
Carrier, Carrier, Carrier, Carrier,  
Pounds Inches Inches Inches

Using Size 75 Trolley Track			
125	36	42	48
250	..	30	36
500	..	..	24
Using Size 175 Trolley Track			
125	42	..	..
250	36	45	..
500	18	27	40
750	12	21	34
1000	..	17	30
1250	..	15	27
1500	..	12	21
2000	..	..	18
2500	..	..	15
3000	..	..	12
Using Size 375 Trolley Track			
125	60	60	..
250	54	48	54
500	30	48	48
750	18	32	42
1000	..	24	36
1250	..	21	30
1500	..	18	24
2000	..	..	21
2500	..	..	18
3000	..	..	..

**SEE THE NEXT PAGE FOR CARRIERS**



# RICHARDS-WILCOX INDUSTRIAL TRACK SYSTEM

See Preceding Page For  
Trolley Track and Brackets



## ROLLER BEARING CARRIERS—For Industrial Trolley Track

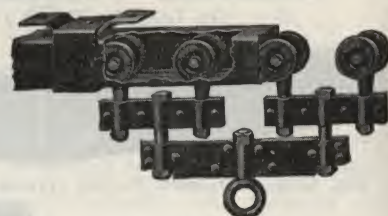
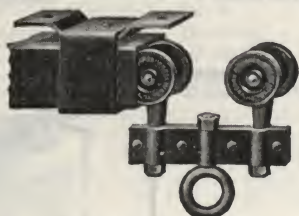


Fig. 5351. 4 Wheel  
Sizes 100-1 and 100-4

Fig. 5352. 4 Wheel  
Sizes 100-14 and 100-15

Fig. 5353. 8 Wheel  
Sizes 100-13 and 100-11

Equipped with drop forged wheels, hardened roller bearings and drop forged pendants with the exception of the No. Fig. 5351 which is a rigid frame carrier. The balance of the carriers are all arranged to swivel and operate on either straight or curved track. Black Japan finish. Add 25% to price for galvanizing.

Size No.	For Trolley Track, Size	No. of Wheels	Weight Pounds	LIST EACH	Size No.	For Trolley Track, Size	No. of Wheels	Weight Pounds	LIST EACH
100-1	75	4	1-1/2	\$2.80	100-4	175 or 375	4	4-1/2	\$5.90
100-14	75	4	3	\$5.90	100-15	175 or 375	4	7	\$7.70
100-13	75	8	9	\$13.50	100-11	175 or 375	8	20	\$21.90

DISCOUNT ..... 45% OFF

## BALL BEARING CARRIERS For Industrial Trolley Track



Fig. 5354  
4 Wheel  
Sizes 100-31  
and 100-34

Fig. 5355. 8 Wheel  
Sizes 100-32 and 100-35

Fig. 5356. 16 Wheel  
Sizes 100-33 and 100-36

Equipped with swivel frame for operating on either straight or curved track and drop forged wheels. High duty steel balls are provided for ease of operation. Frames and eye-bolts are drop forged, connecting bolts of malleable iron. Black Japanned finish. Add 25% to price for galvanizing.

Size No.	For Trolley Track, Size	No. of Wheels	Weight Pounds	LIST EACH	Size No.	For Trolley Track, Size	No. of Wheels	Weight Pounds	LIST EACH
100-31	75	4	2	\$5.90	100-34	175 or 375	4	5	\$9.30
100-32	75	8	5	\$12.00	100-35	175 or 375	8	12	\$21.00
100-33	75	16	14	\$26.50	100-36	175 or 375	16	36	\$42.00

DISCOUNT ..... 45% OFF

## RICHARDS-WILCOX STEEL PLATE BALL BEARING TROLLEYS FOR USE ON I-BEAMS



Fig. 5345 Plain Type  
Fig. 5346 Zerk Fitted

These steel ball bearing trolleys meet the demands for an inexpensive unit for intermittent duty service. For use on I-Beams. Wherever occasional loads are to be transported and where ease of operation is not so important, these trolleys will amply meet the requirements. They are made in two types, both of which are equipped with pressed steel ball bearing wheels. Fig. 5345 is equipped with plain pressed steel wheels and open type ball bearing assembly; while the Fig. 5346 is equipped with Zerk Alemite fittings and dust-proof ball bearing assembly. Single row ball bearings are used on all trolleys except the 2 ton which employs double-row construction. The wheels are deep drawn from special hot rolled steel with the treads carburized and hardened. The ball bearing cone is hardened and accurately machined. The races are hardened and coined for smoothness. Oversize heat-treated ball bearings of tough alloy steel are used.

Capacity Tons	Standard Size Beam Inches	Overall Width Inches	Overall Length Inches	Clearance Below Beam Inches	Bottom To Yoke Inches	Wt. Pounds	Fig. 5345 PLAIN TYPE LIST	Fig. 5346 ZERK FITTED LIST
1/4	4, 5, 6, 7	6-1/8	9-1/4	2-1/4	2-1/2	16	\$17.00	\$20.00
1/2	5, 6, 7, 8	6-1/2	9-3/8	2-1/16	2-5/16	18	\$17.50	\$22.00
1	6, 7, 8, 9	7-5/16	12-1/4	2-9/16	2-13/16	25	\$20.00	\$26.50
2	7, 8, 9, 10, 12	8-1/4	15	2-7/16	2-15/16	48	\$49.00	\$53.00

DISCOUNT ..... 45% OFF



HERCULES PORTABLE CRANE HOIST

A large overhang on the low-down pattern is provided to insure ease in lifting. We recommend the low-down model for automotive repairing, etc. and the standard model for most industrial requirements. Multiple chain block is used to provide for easy lifting of the heaviest load. All steel construction insuring the utmost safety to operator and load. The frames are of one piece formed angles making for safety.

The load can be locked at any point, permitting load to be suspended within the smallest fraction if necessary. This crane can be moved with perfect ease on any reasonably smooth floor. The single rear wheel permits ease of handling and moving in a very limited space. All wheels are provided with a full set of roller bearings, making the crane whether loaded or empty very easy to handle. Wheels and the lower part of the frames are built close to the floor for placing under an automobile or truck with ease.

STANDARD PATTERN—Not Shown

Size No	00	000	1	2	3G	4
Capacity, pounds	500	750	1000	2000	3000	4000
Weight, pounds	200	265	315	390	480	875
Height overall, feet	6-10/12	8	8	8	8	9
Height of Hoist, feet	6-1/12	7-3/12	6-10/12	6-10/12	6-10/12	7-1/12
Height of Bed, inches	10-1/2	10	11	12	12	13
Overhang, feet	1-10/12	2-6/12	2-4/12	2-4/12	2-6/12	2-6/12
Width of Bed, outside, feet	3-6/12	3-1/12	4-2/12	4-2/12	4-2/12	4-8/12
Width of Bed, inside, feet	3	3-1/12	3-3/12	3-3/12	3-5/12	3-7/12
Length of Bed (axle centers)	3-7/12	4-3/12	4	4	4-2/12	4-11/12
Length of Bed, inside	.....	.....	2-6/12	2-6/12	.....	.....
★ NET EACH	\$52.50	\$62.00	\$70.00	\$85.00	\$100.00	\$125.00

LOW-DOWN PATTERN—As Shown

Size No.	2A	3A	4A	6B
Capacity, pounds	1000	2000	3000	6000
Weight, pounds	425	500	600	1280
Height overall, feet	8	8	8	8
Height of Hoist, feet	6-10/12	6-10/12	6-10/12	5-8/12
Height of Bed, inches	7-1/2	7-1/2	7-1/2	10
Overhang, feet	3	3	3	3-4/12
Width of Bed, outside, feet	3-10/12	3-10/12	3-10/12	4-9/12
Width of Bed, inside, feet	3	3	3	3-8/12
Length of Bed (axle centers)	5-1/12	5-1/12	5-1/12	6-6/12
Length of Bed, inside	4	4	4	5-5/12
★ NET EACH	\$80.00	\$90.00	\$110.00	\$220.00



Fig. 5070



SAFETY WORM GEAR WINCH  
Malleable Cast Worm Wheel and  
Steel Cast Worm

★ NET PRICES EACH  
Fig. No. 2683

Drum			Worm Gear	Capacity,		★ NET EACH
No.	Diam., In.	Length, In.		1 Man, 1 Line, Lbs.	1 Man, 2 Lines, Lbs.	
0	5½	x 6	16 to 1	350	700	\$19.30
1	5½	x 6	20 to 1	750	1,500	\$21.75
2	8	x 10	30 to 1	1,000	2,000	\$26.60

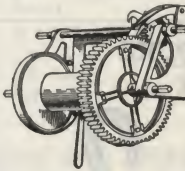


Fig. 2682

SMALL SINGLE DRUM  
SINGLE PURCHASE WINCH

Gears and frame made of best malleable iron. Drum, diam. 4 in., length 8 in., gear diam. 12 in., pinion 3 in. Capacity, 1 man, 2 lines, 2,000 lbs. Capacity, 2 men, 4 lines, 4,000 lbs.

No. 110, with bushings.....★ NET EACH, \$25.40

SINGLE DRUM SINGLE  
PURCHASE WINCH

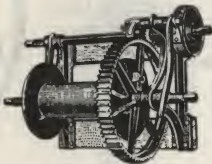


Fig. No. 2680

Gears and frame made of best malleable iron. Diam. of gear, 18 in., pinion 4 in. Lift, 2 men, 2 lines, 3,000 lbs. Lift, 2 men, 4 lines, 6,000 lbs.

★ NET PRICES EACH  
Drum

No.	Diam., In.	Length, In.	★ NET EACH
129	5	x 12	\$58.00
130	5	x 14	\$60.50
131	5	x 16	\$63.00
132	5	x 18	\$65.25
133	7	x 14	\$68.50
134	7	x 16	\$69.00
135	7	x 18	\$71.40
136	7	x 20	\$73.80

DOUBLE DRUM SINGLE  
PURCHASE WINCH

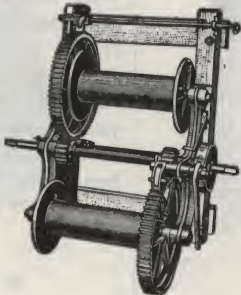


Fig. No. 2679

Gears and frame made of best malleable iron. Diam. of gear, 18 in., pinion 4 in. Lift, 2 men, 2 lines, 3,000 lbs. Lift, 2 men, 4 lines, 6,000 lbs.

★ NET PRICES EACH  
Drum

No.	Diam., In.	Length, In.	★ NET EACH
140	5	x 14	\$99.20
141	5	x 16	\$102.80
142	5	x 18	\$106.50
143	7	x 14	\$107.60
144	7	x 16	\$111.30
145	7	x 18	\$115.00
146	7	x 20	\$118.50
147	7	x 22	\$121.00

SINGLE PURCHASE HOIST-  
ING CRAB

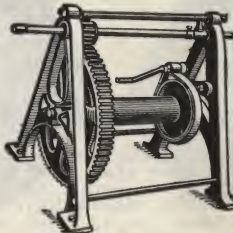


Fig. No. 2681

Gears and frame made of best malleable iron. Diam. of gear, 18 in., of pinion, 4 in. Lift, 2 men, 2 lines, 3,000 lbs. Lift, 2 men, 4 lines, 6,000 lbs.

★ NET PRICES EACH  
Drum

No.	Diam., In.	Length, In.	★ NET EACH
120	5	x 16	\$82.20
121	5	x 18	\$84.70
122	5	x 20	\$87.00
123	5	x 22	\$89.50
124	7	x 16	\$90.75
125	7	x 18	\$93.00
126	7	x 20	\$95.50
127	7	x 22	\$98.00



## WOOD TACKLE BLOCKS

### Regular Inside Iron Strapped

### FOR MANILA ROPE



Single  
Fig. No. 1808



Double  
Fig. No. 1809



Triple  
Fig. No. 1810

This is a heavy block with carefully turned and finished shells. No rough edges. Hooks have free play and sheaves are perfectly turned.

#### LIST PRICES EACH

Dimensions			Iron Bushed			Improved Roller Bushed		
Size Sheave, Inches	For Dia. Rope, Inches	Length Shell, Inches	Single, List Each	Double, List Each	Triple, List Each	Single, List Each	Double, List Each	Triple, List Each
1 3/4 x 1 1/2 x 3/8	3/8	3	\$0.70	\$1.30	\$1.75	\$1.10	\$2.00	\$2.90
2 1/4 x 1 1/2 x 3/8	1/2	4	.85	1.60	2.15	1.20	2.25	3.25
3 x 1 1/2 x 3/8	5/8	5	.90	1.75	2.25	1.25	2.35	3.50
3 1/2 x 1 1/2 x 3/8	3/4	6	1.10	2.00	2.90	1.50	2.85	4.40
4 1/4 x 1 1/2 x 3/8	7/8	7	1.30	2.40	3.50	1.70	3.35	5.00
4 3/4 x 1 1/2 x 3/8	1	8	1.65	2.85	4.25	2.25	4.15	6.00
5 1/2 x 1 1/2 x 3/8	1	9	1.85	3.40	4.75	2.50	4.70	7.25
6 1/4 x 1 1/2 x 3/8	1 1/8	10	2.75	4.50	6.25	3.50	6.00	8.50

DISCOUNT, ALL SIZES ..... 25-5% OFF

## HEAVY TACKLE THICK MORTISE BLOCKS

### FOR MANILA ROPE



Single  
Fig. No. 1811



Double  
Fig. No. 1812



Triple  
Fig. No. 1813

With heavy loose side hooks and straps, and double cross bolted shells. Adapted for railroads, mining, bridge building and contractors' work.

#### LIST PRICES EACH

Dimensions			Iron Bushed			Improved Roller Bushed		
Size Sheave, Inches	For Dia. Rope, Inches	Length Shell, Inches	Single, List Each	Double, List Each	Triple, List Each	Single, List Each	Double, List Each	Triple, List Each
3 1/2 x 1 1/2 x 3/4	3/4	6	\$ 2.00	\$ 3.50	\$ 5.00	\$ 2.75	\$ 5.00	\$ 7.25
4 x 1 1/2 x 1	1	7	2.25	4.00	5.50	3.00	5.50	7.75
4 3/4 x 1 1/2 x 1 1/8	1 1/8	8	2.75	4.50	6.30	3.50	6.00	8.55
5 1/4 x 1 1/2 x 1 1/8	1 1/8	9	3.15	5.25	7.25	4.00	6.95	9.80
6 1/4 x 1 1/2 x 1 1/8	1 1/4	10	4.00	6.50	8.50	5.25	9.00	12.25
8 x 1 1/2 x 1 1/8	1 1/2	12	5.25	8.50	12.50	6.50	11.00	16.25
9 1/4 x 1 1/2 x 1 1/8	1 3/4	14	8.00	13.00	17.00	9.75	16.50	22.25
11 x 2 1/4 x 1 1/2	2	16	11.50	18.00	28.00	14.00	23.00	35.50

PRICE { 10 in. and smaller ..... 15% OFF  
          { 12 in. and larger .. LIST PLUS 15%

## STEEL TACKLE BLOCKS

### FOR MANILA ROPE



Single  
Fig. No. 1815



Double  
Fig. No. 1816



Triple  
Fig. No. 1817

#### Regular Pattern

Standard blocks for manila rope. With loose side hooks. Lighter than wood blocks and equally strong. As there is no danger of shells splitting, they are more durable. Shells have nicely rounded edges to protect rope.

#### LIST PRICES EACH

Dimensions			Iron Bushed			Improved Roller Bushed		
Dia. Sheaves, Inches	For Dia. Rope, Inches	Length Shell, Inches	Single, List Each	Double, List Each	Triple, List Each	Single, List Each	Double, List Each	Triple, List Each
1 3/4	3/8	3	\$0.70	\$1.30	\$1.75	\$1.10	\$2.00	\$2.90
2 1/4	1/2	4	.85	1.60	2.15	1.20	2.25	3.25
3	5/8	5	.90	1.75	2.25	1.25	2.35	3.50
3 1/2	3/4	6	1.10	2.00	2.90	1.50	2.85	4.40
4 1/4	7/8	7	1.30	2.40	3.50	1.70	3.35	5.00
4 3/4	1	8	1.65	2.85	4.25	2.25	4.15	6.00
5 1/2	1	9	1.85	3.40	4.75	2.50	4.70	7.25
6 1/4	1 1/8	10	2.75	4.50	6.25	3.50	6.00	8.50

DISCOUNT { 7 inch and smaller .. 45-5% OFF  
                  { 8 and 10 inch ..... 25-5% OFF

## STEEL SPECIAL

### SAFETY ROPE HOISTS

The heavier the load, the tighter the grip. Lifts heavy loads easily, and holds them at any desired point. Controlled by pull rope only—no trip ropes. The feature is an extra strong steel tackle block with a safety lock. A slight outward pull sets the lock and holds the load suspended; an inward twitch on pull rope releases the lock. Built with center pull feature, which equalizes the strain on each sheave. Reduces friction and side draft and increases lifting capacity one-third. Tackle blocks have forged steel hooks, steel straps, steel bearings and steel plates.

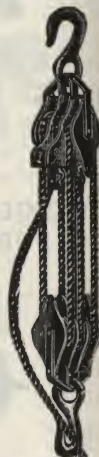


Fig. 3111

#### ★ NET EACH—WITHOUT ROPE

No.	Capacity Tons	Size Rope Inches	No. of Sheaves	Average Man Can Hoist	Without Rope ★ NET EACH
3	1	1/4 to 1/2	3	600 pounds	\$1.69
6	2	3/8 to 3/4	3	650 pounds	\$3.32
9	4	1/2 to 7/8	3	700 pounds	\$4.50
2	3/4	1/4 to 1/2	2	300 pounds	\$1.12
5	1-1/4	3/8 to 3/4	2	350 pounds	\$2.53
8	2-1/2	1/2 to 7/8	2	400 pounds	\$3.60
1	1/5	1/4 to 1/2	1	150 pounds	\$0.79
4	1/2	3/8 to 3/4	1	175 pounds	\$1.12
7	1-1/4	1/2 to 7/8	1	200 pounds	\$1.97



### PERFECT METAL BLOCKS FOR MANILA ROPE. LOOSE SIDHOOKS.

Single  
Fig. 5295Double  
Fig. 5296Triple  
Fig. 5297

Malleable iron shells, finished red. The outer edges of the middle partitions and the sides of the shell are rounded to protect the rope. Both the outside and middle straps extend the full length of the shell; the strain is borne by the straps, and not the shell. Iron bushed can be furnished at slightly lower prices, price on request.

Size Sheave, Inches	For Rope, Diam. Inches	—PATENT— SIX-ROLLER BUSHED			—PHOSPHOR— BRONZE BUSHED SELF- LUBRICATING		
		Single LIST	Double LIST	Triple LIST	Single LIST	Double LIST	Triple LIST
1-3/4x 1/2x3/8	3/8	\$1.30	\$2.10	\$2.60	\$1.60	\$2.65	\$3.40
2 x 5/8x3/8	1/2	1.40	2.35	3.00	1.70	2.90	3.85
2-1/4x 5/8x3/8	1/2	1.50	2.50	3.40	1.80	3.15	4.25
3 x 3/4x3/8	5/8	2.00	3.10	4.35	2.35	3.80	5.40
3-1/2x1 x1/2	3/4	2.40	3.90	5.40	3.10	5.25	7.20
4-1/4x1 x1/2	7/8	3.05	4.90	6.85	3.60	5.90	8.40
4-3/4x1-1/8x5/8	1	3.85	6.60	9.20	4.55	7.65	10.70
5-1/2x1-3/8x5/8	1-1/8	5.25	8.95	11.80	5.90	10.30	13.85
6-1/4x1-1/2x3/4	1-1/4	7.00	10.90	14.85	7.75	12.85	17.55
7-1/2x1-5/8x3/4	1-1/2	10.20	17.50	25.00	11.00	19.00	27.20
8-1/2x1-7/8x7/8	1-3/4	17.50	30.00	41.50	18.00	31.00	43.00
<b>DISCOUNT</b>					<b>25% OFF</b>		

### DROP LINK SNATCH BLOCKS FOR MANILA ROPE

Wood Shell  
Fig. 3408Steel Shell  
Fig. 1818

Drop forged flattened swivel hooks, heads and links.

#### LIST PRICES EACH

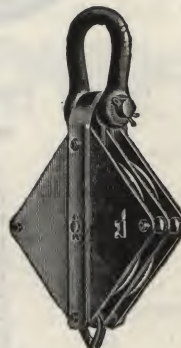
Size Sheaves, Inches	For Rope, Diameter Inches	Length Shell, Inches	Iron Bushed, LIST EACH	Roller Bushed, LIST EACH
3x1-1/8x1/2	7/8	6	\$4.00	\$4.65
3-1/2x1-1/4x1/2	7/8	7	\$4.75	\$5.50
4-1/2x1-3/8x5/8	1	8	\$5.75	\$6.60
5x1-3/8x5/8	1-1/8	9	\$6.75	\$7.75
5-3/4x1-7/8x3/4	1-1/4	10	\$8.50	\$10.00
6-3/4x2-1/8x3/4	1-1/2	12	\$10.00	\$11.50
8x2-1/4x7/8	1-3/4	14	\$13.00	\$15.00
9x2-5/8x1	2	16	\$17.00	\$20.00

#### DISCOUNTS

Shell	Fig. 3408 WOOD SHELL		Fig. 1818 STEEL SHELL	
	6 to 10 Inch	40 %	40 %	
12 Inch	32 1/2 %		40 %	
14 Inch	25 %		32 1/2 %	
16 Inch	17 1/2 %		17 1/2 -5 %	

### WROUGHT IRON BLOCKS FOR WIRE ROPE

#### Diamond Shell

Single  
Fig. No. 1822Double  
Fig. No. 1823Single  
Fig. No. 1824Double  
Fig. No. 1825Triple  
Fig. No. 3407

#### With Stiff Swivel Hooks

##### LIST PRICES EACH

Dimensions Size Sheaves, Inches	For Dia. Rope, Inches	Iron Bushed			Bronze Bushed		
		Single, List Each	Double, List Each	Triple, List Each	Single, List Each	Double, List Each	Triple, List Each
6x1 x 3/4	3/8	\$ 6.00	\$11.00	\$14.00	\$ 9.00	\$17.00	\$22.00
8x1 1/4x 1/2	1/2	8.00	13.00	16.00	11.00	19.00	24.00
10x1 1/4x 3/8	5/8	10.00	15.00	20.00	13.00	21.00	28.00
12x1 1/2x1 1/8	3/4	12.00	17.00	23.00	15.00	23.00	31.00
14x1 1/2x1 1/8	7/8	14.00	19.00	26.00	17.00	25.00	34.00
16x1 3/4x1 1/4	1	21.50	31.00	39.50	25.00	38.00	50.00

#### DISCOUNT

Common Bushed	35% OFF	33 1/3% OFF	20% OFF	5% OFF
Bronzed Bushed	40-5% OFF	40% OFF	25% OFF	10-5% OFF

#### With Shackles

##### LIST PRICES EACH

Dimensions Size Sheave, Inches	For Dia. Rope, Inches	Iron Bushed			Bronze Bushed		
		Single, List Each	Double, List Each	Triple, List Each	Single, List Each	Double, List Each	Triple, List Each
6x1 x 3/4	3/8	\$ 6.00	\$11.00	\$14.00	\$ 9.00	\$17.00	\$22.00
8x1 1/4x 1/2	1/2	8.00	13.00	16.00	11.00	19.00	24.00
10x1 1/4x 3/8	5/8	10.00	15.00	20.00	13.00	21.00	28.00
12x1 1/2x1 1/8	3/4	12.00	17.00	23.00	15.00	23.00	31.00
14x1 1/2x1 1/8	7/8	14.00	19.00	26.00	17.00	25.00	34.00
16x1 3/4x1 1/4	1	21.50	31.00	39.50	25.00	38.00	50.00

6 and 8 in. 10 in. 12 in. 14 and 16 in.



### METAL SNATCH BLOCK FOR MANILA ROPE



Closed

Fig. 5298

Open

A safe and easily operated locking device. Malleable iron shells. The outer shell edges are rounded, no sharp points to chafe the rope.

Sheave Size Inches	For Manila Rope Diam. Inches	Iron Bushed LIST EACH	Six-Roller Bushed LIST EACH	Phosphor Bronze Bushed LIST EACH
3	x1-1/8x 1/2	7/8	\$4.50	\$5.15
3-1/2	x1-1/4x 1/2	7/8	\$5.50	\$6.25
4-1/2	x1-3/8x 5/8	1	\$6.50	\$7.35
5-3/4	x1-7/8x 3/4	1-1/4	\$10.00	\$11.50
6-3/4	x2-1/8x 3/4	1-1/2	\$12.50	\$14.00
8	x2-1/4x 7/8	1-3/4	\$16.00	\$18.00
9	x2-5/8x1	2	\$21.00	\$24.00

Up to 1-1/4 In. Rope 10-5% OFF  
1-1/2 In. Rope & Up LIST NET

### TEAM SNATCH BLOCK FOR WIRE ROPE



Fig. 3402

With drop forged flattened swivel hook. Steel shell with edges nicely rounded to prevent cutting rope.

Sheave Size Inches	For Wire Rope Diam. Inch	Iron Bushed LIST EACH	Bronze Bushed LIST EACH
6x1x1	1/2	\$6.00	\$7.00
8x1-1/4x1-1/8	5/8	\$8.00	\$9.50
10x1-1/2x1-1/4	3/4	\$11.00	\$13.00

PRICE ..... PLUS 5%

### WROUGHT IRON SNATCH BLOCKS FOR WIRE ROPE Drop Link



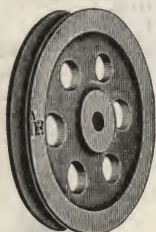
Fig. No. 1826

With semi-circular guard pressed in shell over sheave to prevent wire slipping between shell and sheave.

#### LIST PRICES EACH

Diameter, Sheave, Inches	For Wire Rope, In.	Iron Bushed, LIST EACH	Bronze Bushed, LIST EACH	Discount
6	3/8	\$11.00	\$12.00	50-10%
8	1/2	14.00	15.00	50-10%
10	5/8	16.00	18.00	40-5%
12	3/4	18.00	21.00	40-5%
14	7/8	20.00	24.00	33 1/3%
16	1	28.00	33.00	25%
18	1 1/4	38.00	44.00	NET
20	1 1/2	50.00	58.00	NET
20	1 1/2	60.00	68.00	NET

### IRON SHEAVES FOR WIRE ROPE

Fig. No. 1827  
Iron BushedFig. No. 1827A  
Bronze Bushed

Size Sheave, Inches	Thickness at Hub, In.	For Diameter Wire, Inches	Common, LIST EACH	Bronze, LIST EACH
4x 3/4x 1/2	15/16	3/8	\$0.40	\$1.25
5x 7/8x 5/8	15/16	3/8	.60	1.35
6x 1x 3/4	1	3/8	.80	1.50
6x1 x 3/4	1 1/16	3/8 & 1/2	.80	1.60
7x1 x 3/4	1 1/16	1/2	1.30	2.00
8x1 x 3/4	1 1/8	1/2	1.30	2.00
8x1 1/4x 3/4	1 3/8	1/2 & 3/8	1.60	2.70
9x1 1/4x 3/4	1 3/8	3/8	2.20	3.30
10x1 x 3/8	1 1/8	1/2	1.60	2.50
10x1 1/4x 3/8	1 3/8	3/8	2.20	3.30
10x1 1/2x1	1 3/8	3/8	2.20	3.40
12x1 x1	1 1/8	1/2	2.60	3.50
12x1 1/2x1	1 3/8	3/4	3.50	4.90
12x1 3/4x1	1 3/8	3/4	4.00	5.50
14x1 1/2x1	1 3/8	3/4	5.20	6.70
14x1 3/4x1 1/8	1 5/8	3/4	5.20	6.80
16x1 3/4x1 1/4	2	3/8	6.90	8.80

Note: Many other stock patterns not included in this list can be furnished. Special sizes also made to order.

DISCOUNT ..... 20% OFF

### IRON SHEAVES For Regular and Thick Mortise Blocks FOR MANILA ROPE

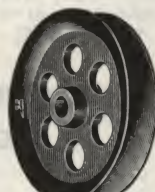
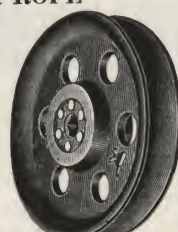
Fig. No. 1828  
Iron Bushed

Fig. No. 1829

Size Sheave, Inches	For Block, Inches	Iron Bushed, LIST EACH	Improved Roller Bushed, LIST EACH
1 1/4x 1 1/2x 3/4	3	\$0.09	\$0.40
2 1/4x 2 1/2x 3/4	4	.12	.45
3 x 3 1/4x 3/4	5	.20	.55
3 1/2x1 x 1/2	6	.25	.65
4 x1 1/2x 1/2	7	.30	.75
4 1/4x1 1/2x 1/2	7	.35	1.00
4 1/2x1 1/2x 1/2	8	.35	1.00
5 1/2x1 1/2x 1/2	8	.40	1.15
5 3/4x1 1/2x 1/2	9	.45	1.10
6 1/4x1 1/2x 1/2	9	.50	1.25
6 1/2x1 1/2x 1/2	10	.55	1.35
8 x1 1/2x 1/2	10	.65	1.60
8 1/2x1 1/2x 1/2	12	.90	1.90
9 1/2x1 1/2x 1/2	12	1.05	2.10
11 x2 1/4x1	14	1.50	2.85
	16	2.00	3.50

#### DISCOUNT, Sheaves for Regular Blocks

Sheave Size, Inches	Fig. 1828 Iron Bushed	Fig. 1829 Roller Bushed
1-3/4 to 4-1/4	15% OFF	40% OFF
4-3/4 to 8	5% OFF	35% OFF
9-1/2 and 11	PLUS 8%	25-5% OFF

Discount, Thick Mortise Sheaves, On Application

### DROP FORGED STEEL WELDLESS TURNBUCKLES

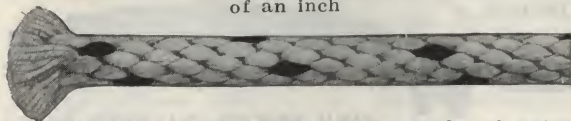
Fig. No. 2209  
Eye and EyeFig. No. 2210  
Hook and Eye

Bolt Diameter By Opening, Inches	PLAIN *NET EACH	GALVANIZED *NET EACH
1/4 by 4	\$0.24	\$0.25
3/8 by 6	\$0.38	\$0.41
1/2 by 6	\$0.49	\$0.61
5/8 by 6	\$0.70	\$0.84
3/4 by 6	\$1.02	\$1.10
7/8 by 12	\$2.05	\$2.48
1 by 12	\$2.57	\$3.07



**SASH CORD**

The number indicates the diameter in 32nds of an inch



**5299 SAMSON SPOT SASH CORD.** Made of extra quality, fine 3 ply cotton yarn. Inspected and guaranteed free from flaws. The best cord, does not stretch, and the most durable for any class of work. The strength of a No. 8 size is about 375 pounds.

1 to 11 Hanks	★ BASE POUND, \$0.63
1 to 5 Dozen Hanks	★ BASE POUND, \$0.58
6 to 11 Dozen Hanks	★ BASE POUND, \$0.53
1200 Foot Coils	★ BASE POUND, \$0.58

**5300 PHOENIX SASH CORD.** Made of selected cotton yarn. A smooth, firmly braided cord. Serviceable for ordinary work, clothes lines, etc. It is strong and durable and does not stretch. The size 8 has a strength of about 350 pounds.

1 to 11 Hanks	★ BASE POUND, \$0.46
1 to 5 Dozen Hanks	★ BASE POUND, \$0.41
6 to 11 Dozen Hanks	★ BASE POUND, \$0.39
1200 Foot Coils	★ BASE POUND, \$0.41

**5301 AETNA CORD.** Made of cotton yarn, solid and firmly braided, full size and weight. Sizes 6 to 12 only.

1 to 11 Hanks	★ BASE POUND, \$0.43
1 to 5 Dozen Hanks	★ BASE POUND, \$0.36
6 to 11 Dozen Hanks	★ BASE POUND, \$0.34
1200 Foot Coils	★ BASE POUND, \$0.36

**IN 100 FOOT HANKS OR 1200 FOOT COILS**

No. Size	Diameter Inch	Pounds to 1200 Ft.	Feet to Pound	Add to BASE Pound
6	3/16	18	66	\$0.03
7	7/32	22	55	\$0.01
8	1/4	27	44	BASE
9	9/32	33	36	BASE
10	5/16	44	27	BASE
12	3/8	60	20	BASE
<b>SAMSON OR PHOENIX 1200 FOOT COILS</b>				
14	7/16	84	14.2	BASE
16	1/2	108	11.1	BASE
20	5/8	156	7.6	\$0.03
24	3/4	204	5.8	\$0.03

**SASH CHAIN**

Fig. 5071

Chain No.	65	60	50	40	8
Links to Foot	14	16	20	23	22
Reels, Feet	250	250	500	500	500
Gauge	.072	.062	.060	.042	.035
Strength, Lbs.	1200	925	850	620	250
Lbs. 1000 Ft.	225	160	120	74	50

**STEEL—LIST 1000 FEET**

Plain	\$100.	\$80.	\$45.	\$34.	\$24.
Coppered	\$104.	\$83.	\$47.	\$36.	\$26.
Sheradized	\$116.	\$92.	\$52.	\$39.	\$27.

**BRONZE—LIST 1000 FEET**

Red	\$220.	\$180.	\$112.	\$78.	\$56.
Phosphor	\$290.	...	\$156.	\$110.	...

**100 Foot Lengths** ..... 25% OFF  
**Reel Lots** ..... 35% OFF

**SIZE 8 WITH FITTINGS.** 100 feet in bag with hooks and spirals.  
 Steel, Coppered ..... ★ NET BAG, \$1.35  
 Steel, Sheradized ..... ★ NET BAG, \$1.50

**SMALL EYE BOLTS**

Fig. No. 3426

Machine thread steel eye bolts. Hexagon nuts. Strong and well made. For general use. Special sizes made to order.

Size	Length of Thread	Plain LIST 100	Galvanized LIST 100
10-24	1 1/4	4.00	5.00
12-24	1 1/2	5.00	6.00
1/4-20	1 3/4	6.50	8.00
3/8-18	2	9.00	10.00
1/2-16	2 1/4	12.00	13.50
<b>DISCOUNT</b>			
{ 1 to 99 Assorted		45% OFF	
{ 100 or More		50% OFF	

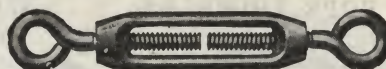
**SMALL TURNBUCKLES**

Fig. No. 3420

Exceptionally well made and proportioned. Bodies are large size and the steel screw eyes fit well. High grade finish. May be furnished not finished or any other finish required to order.

Length Overall	Screw Size	Style No.	List Gross
<b>GALVANIZED—LIST GROSS</b>			
3	3/16	24	\$13.00
4	3/16	34	15.00
4 1/2	7/32	44	18.00
<b>DISCOUNT</b>			
{ 1 to 11 Each			20% OFF
{ 1 to 11 Dozen			25% OFF
{ 12 Dozen or More			33 1/2% OFF

**NICKEL PLATED—LIST GROSS**

Length Overall	Screw Size	Style No.	List Gross
3	3/16	25	\$12.00
4	3/16	35	13.50
4 1/2	7/32	45	16.00
<b>DISCOUNT</b>			
{ 1 to 11 Each			LIST NET
{ 1 to 11 Dozen			10% OFF
{ 12 Dozen or More			15% OFF

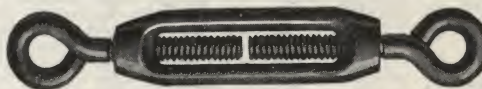
**HARDWARE TYPE TURNBUCKLES**

Fig. No. 3421

All sizes have steel screw eyes. Very strong for their size. 1 dozen in box. Special sizes or types furnished promptly to order.

Length Overall	Screw Size	Style No.	List Dozen
<b>PLAIN—LIST DOZEN</b>			
5 1/4	1/4	53	\$2.30
6	5/16	63	2.90
6 1/2	3/8	73	4.40
<b>GALVANIZED—LIST DOZEN</b>			
5 1/4	1/4	54	\$2.70
6	5/16	64	3.40
6 1/2	3/8	74	5.00
<b>DISCOUNT</b>			
{ 1 to 11 Each			33 1/2% OFF
{ 1 to 11 Dozen			40% OFF
{ 12 Dozen or More			45% OFF

**SINGLE JACK CHAIN**

Fig. 5072

**LIST 100 FEET**

Size No.	Gauge W. & M.	Links To Foot	Steel	Brass
6	.1920	9-1/2	\$4.50	\$27.75
8	.1620	11-1/2	\$3.25	\$18.00
10	.1350	14	\$2.75	\$12.00
12	.1055	16	\$2.25	\$8.00
14	.0800	19	\$1.90	\$5.50
16	.0625	25-1/2	\$1.65	\$3.50

**DISCOUNTS**

Up to 49 Feet ..... 25% OFF  
 50 Foot Lengths ..... 40% OFF

**DOUBLE JACK CHAIN**

Fig. 5073

**LIST 100 FEET**

Size No.	Gauge W. & M.	Links To Foot	Steel	Brass
10	.1350	21	\$3.25	\$16.75
12	.1055	23-1/2	\$2.50	\$11.00
14	.0800	25	\$2.10	\$7.00
16	.0625	37	\$1.85	\$4.50

**DISCOUNTS**

Up to 49 Feet ..... 25% OFF  
 50 Foot Lengths ..... 40% OFF



### GALVANIZED WIRE ROPE THIMBLES



Fig. No. 1847

#### LIST EACH

Size (Rope Diam.) Inches	Overall Length, Inches	Inside Width, Inches	Weight, 100 Pounds	LIST 100
1/4	1 3/4	3/4	4.25	\$ 4.40
5/16	2	13/16	5.75	\$ 5.25
3/8	2 1/4	1 1/8	10.5	\$ 6.00
7/16	2 3/4	1 1/4	11	\$ 7.00
1/2	2 3/4	1 1/2	13	\$ 8.00
5/8	2 3/4	1 3/4	25	\$10.00
3/4	3 1/4	1 3/4	27	\$11.00
7/8	3 3/8	1 3/2	34	\$13.00
1	4 1/4	1 3/4	51	\$16.00
1 1/4	4 3/4	2	65	\$21.00
1 1/2	5 3/4	2 1/2	136	\$ 44.00
1 3/4	6 3/4	3	215	\$120.00

### MALLEABLE IRON WIRE ROPE CLIPS JAPANNED BLACK



Fig. No. 1846

A rugged clip used everywhere as a wire rope fastening and for joining rods. The base is made of "certified" malleable iron. The U-Bolt is open heart steel. When applying clips to wire rope, place the base against the pulling side, the U-Bolt on the dead end.

Rope Diameter Inches	Net Weight In Pounds Per 100	Japanned Black LIST 100
1/4	13 1/2	\$ 6.50
5/16	15	\$ 7.00
3/8	22	\$ 9.70
7/16	27	\$12.50
1/2	35	\$14.50
5/8	56	\$19.00
3/4	56 1/2	\$19.00
7/8	89	\$27.00
1	135	\$38.50
1 1/4	170	\$46.50
1 1/2	316	\$90.00
1 3/4	500	\$105.00
2	570	\$120.00

### DROP FORGED STEEL WELDLESS TURNBUCKLES



Fig. 1672

#### STUB END OR WITHOUT BOLT END

Drop forged steel turnbuckle body with hexagon shaped heads, fitted with steel stubs with right and left hand U. S. Standard threads. For larger sizes, prices on application.

Size, Diameter and Opening	Extended Overall Length	Body Overall Length	Stub Length, Inches	LIST EACH
1 1/4 x 4	13 1/4	4 1/8	4 3/8	\$0.36
5/8 x 4 1/2	15	5 3/8	5 1/4	\$ .38
3/4 x 6	19 1/4	7 1/4	6 3/8	\$ .45
1 1/2 x 6	20	7 3/8	7	\$ .50
5/8 x 6	21 1/4	7 3/8	7 3/8	\$ .60
3/4 x 6	21 1/2	8 1/4	7 3/4	\$ .75
1 x 6	22 1/2	8 1/2	8 1/4	\$ .90
1 1/4 x 6	23	8 3/4	8 1/2	\$1.10
1 1/2 x 6	24 3/4	9 1/8	9 3/8	\$1.40
1 3/4 x 6	25	9 3/8	9 1/2	\$1.70
2 x 6	25 1/2	10 3/8	9 3/4	\$2.10
2 1/4 x 6	26	10 3/8	10	\$2.50
2 1/2 x 6	27	10 3/8	10 1/2	\$3.25
2 3/4 x 6	27 1/2	10 3/8	10 3/4	\$4.05
3 x 6	29	11	11 1/2	\$6.20

With Stub Ends ..... 30% OFF  
Without Stub Ends ..... 55-5% OFF

DISCOUNT ..... 33 1/3% OFF

DISCOUNT ..... 40% OFF

### DROP FORGED WIRE ROPE CLIPS



Fig. 4188. Galvanized.

For Rope Approx. Wt. Inches	100 Lbs.	No. Clips Recom- mended
1/4	30	2
5/16	30	2
3/8	34	2
7/16	70	3
1/2	70	3
5/8	100	3

LIST EACH
\$0.35
\$ .35
\$ .40
\$ .45
\$ .45
\$ .55

For Rope Approx. Wt. Inches	100 Lbs.	No. Clips Recom- mended
3/4	150	4
7/8	245	4
1	260	4
1 1/8	305	4
1 1/4	440	5
1 3/8	455	5

LIST EACH
\$ .65
\$ .75
\$ .85
\$ .95
\$1.10
\$1.25

DISCOUNT ..... 45% OFF

### DROP-FORGED HOIST HOOKS With Eye—Weldless



Fig. No. 2686

These Hooks are submitted to a special refining process or "heat treatment," after forging which increases their strength and toughness and reduces the liability of breakage.

To insure proper service at listed capacity every hook, after heat treatment, is proof-tested to fifty per cent beyond its rated "Safe Working Load."

Tobin bronze hooks from standard or special dies to order in quantities; prices on application.

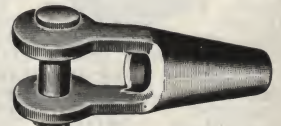
A—Safe working load in net tons.  
B—Average load at elastic limit in net tons.  
C—Approximate load required to straighten out, in net tons.

#### LIST PRICES EACH

No.	Diameter of Eye, In.	Extreme Dimensions, In.	Capacity	List each
	Inside	Outside	"A" "B" "C"	
22	3/4	1 1/2	4 3/8 2 7/8 .5 .9 1.9	\$0.36
23	7/8	1 3/4	4 3/8 3 1/8 .6 1.2 2.3	.43
24	1	2	5 3/8 3 1/2 .7 1.5 3.	.53
25	1 1/8	2 1/4	6 3/8 3 3/8 1.2 2.5 5.7	.73
26	1 1/4	2 3/4	6 3/8 4 3/8 1.7 3.5 7.	1.05
27	1 3/8	2 3/4	7 3/8 4 3/8 2.1 4.2 8.5	1.50
28	1 1/2	3	8 3/8 5 3/8 2.5 5.4 10.	2.10
29	1 3/8	3 1/4	9 3/8 6 3/8 3. 6.2 13.	2.85
30	1 3/4	3 1/2	10 3/8 6 3/8 4. 8. 17.	3.70
31	2	4	11 1/2 7 3/8 4.7 9. 19.	4.70
32	2 3/8	4 5/8	13 8 1/4 5.5 11. 26.	6.40
33	2 3/4	5 1/4	14 3/4 9 1/4 6.8 13. 32.	9.40
34	3 1/4	6 1/8	16 3/4 10 7/8 8. 17. 35.	18.50
35	3 3/8	7	19 1/4 13 11. 21. 48.	35.00
36	4	8 1/4	22 1/2 14 3/4 20. 40. 80.	86.00

DISCOUNT ..... 55% OFF

### WIRE ROPE SOCKETS Closed and Open Patterns

Fig. No. 1838  
Closed PatternFig. No. 1839  
Open Pattern

Both closed and open patterns are drop-forged from a fine grade of steel, making them superior in strength and finish to the heavier hand-made product. Numerous tests show their strength is greater than that of the strongest wire rope made.

Fig. No. 1839 furnished, regularly complete with split-pin. The pins are made of a superior grade of steel to obtain high shearing strength.

Dimensions given in inches.

#### LIST PRICES EACH

Rope Diam. Inches	Basket Length Inches	Pin Diam.	Open Type Between Jaws	Length Inside	Closed Type Width Inside	Length Inside	OPEN LIST EACH	CLOSED LIST EACH
1/4	1 1/2	1/8	5/8	1	5/8	1 1/2	\$ 1.00	\$ 0.70
5/16	1 3/8	9/16	1 1/8	1 1/8	1 1/8	1 3/8	\$ 1.05	\$ .75
3/8	1 3/4	3/4	1 3/4	1 3/4	1 3/4	1 3/4	\$ 1.40	\$ .85
7/16	1 5/8	1 1/8	1 5/8	1 5/8	1 5/8	1 5/8	\$ 1.45	\$ .90
1/2	2	7/8	2	2	2	2	\$ 1.85	\$ 1.15
5/8	2 1/4	1 1/8	2 1/4	2 1/4	2 1/4	2 1/4	\$ 1.95	\$ 1.25
3/4	2 3/4	1 3/8	2 3/4	2 3/4	2 3/4	2 3/4	\$ 2.40	\$ 1.55
7/8	3	1 1/2	3	3	3	3	\$ 3.10	\$ 2.10
1	3 1/2	1 3/4	3 1/2	3 1/2	3 1/2	3 1/2	\$ 3.90	\$ 2.90
1 1/4	4	1 3/4	4	4	4	4	\$ 5.25	\$ 4.00
1 1/2	5	1 3/4	5	5	5	5	\$ 9.25	\$ 7.00
1 3/8	5 1/2	2 1/8	5 1/2	5 1/2	5 1/2	5 1/2	\$ 9.75	\$ 7.50
1 1/2	6	2 3/4	6	6	6	6	\$13.00	\$10.50

DISCOUNT ..... 33 1/3% OFF



# ALLEN'S OCEAN BRAND

## OCEAN BRAND MANILA ROPE

### 3 Strand

We guarantee our OCEAN BRAND Manila (with green and black thread marker) to equal or surpass U. S. Government Bureau of Standards Specification Rope. Absolutely nothing but high grade Manila fibre is used, with just enough first quality oil to preserve the fibre and make the rope durable and rugged for use under any climatic condition.

### Approximate Weight and Strength of Manila Rope—3 Strand

Size in Inches Diameter	Approx. Gross Weight 1200 Foot of Coil	Weight Each Foot, Pound	Length In 1 Foot, Feet	Breaking Strength Pounds
6 thd. 3/16	18	.015	66.6	450
6 thd. 1/4	24	.020	50.0	600
9 thd. 5/16	35	.029	34.5	1000
12 thd. 3/8	50	.041	24.4	1350
15 thd. 7/16	63	.053	19.0	1750
21 thd. 1/2	90	.075	13.3	2650
9/16	125	.104	9.61	3450
5/8	160	.133	7.5	4400
3/4	200	.167	6.0	5400
13/16	234	.195	5.13	6500
7/8	270	.225	4.45	7700
1	324	.270	3.71	9000

### HAWSER LAID MANILA ROPE

Fig. No. 1852

Full coils of 1,200 feet, or half coils of 600 feet.

★ NET POUND,  
\$0.28 1/2

Cut lengths.

★ NET POUND,  
\$0.29 1/2

### ★ NET PRICES PER LB.

Larger than 5/8 inch.....\$0.26 1/2  
5/8 inch.....\$0.27  
7/16, 1/2, 9/16 inch.....\$0.27 1/2  
5/8 inch.....\$0.29 1/2  
1/4 and 5/16 inch.....\$0.30 1/2  
3/16 inch.....\$0.31 1/2

Full Coils of 1200 Feet,  
DEDUCT 2c POUND

Half Coils of 600 Feet,  
DEDUCT 1c POUND

4 strand rope, 1c per lb. advance.

### MARINE BRAND 3 Strand

Should your needs not demand a rope of superior quality like Ocean Brand Manila, where long service and extra strength is needed, our MARINE brand, made from selected pure long fibre Manila will meet all general requirements, both from the quality and price standpoint.

### ★ NET PRICES PER LB.

Larger than 5/8 inch.....\$0.24  
5/8 inch.....\$0.24 1/2  
7/16, 1/2, 9/16 inch.....\$0.25  
5/8 inch.....\$0.27 1/2  
1/4 to 5/16 inch.....\$0.28  
3/16 inch.....\$0.29

Full Coils of 1200 Feet,  
DEDUCT 2c POUND

Half Coils of 600 Feet,  
DEDUCT 1c POUND

4 strand rope, 1c per lb. advance.

### MANILA TRANSMISSION ROPE

Fig. No. 1851

Full coils of 1,200 feet, or half coils of 600 feet.

★ NET POUND, \$0.26 1/2

Cut lengths.

★ NET POUND, \$0.27 1/2

### SISAL ROPE

Fig. No. 1853

### ★ NET PER POUND

3/4 inch and larger ★ Net Pound, \$0.18 1/2  
5/8 and 7/8 inch.....★ Net Pound, \$0.19  
1/2 and 5/8 inch.....★ Net Pound, \$0.19 1/2  
5/8 inch.....★ Net Pound, \$0.20 1/2  
1/4 and 5/8 inch.....★ Net Pound, \$0.21 1/2  
7/8 inch.....★ Net Pound, \$0.22 1/2

Full Coils of 1200 Feet,  
DEDUCT 2c POUND

Half Coils of 600 Feet,  
DEDUCT 1c POUND

### PLUMBERS' OAKUM

Fig. 3409

Spun Oakum. Bale of 50 pounds is held in shape by wooden slats which are tied and then wrapped with heavy paper. Easy to handle.

★ Net 50 Pound Bale, \$4.50

Spun Oakum. 20—5 Pound Cartons.

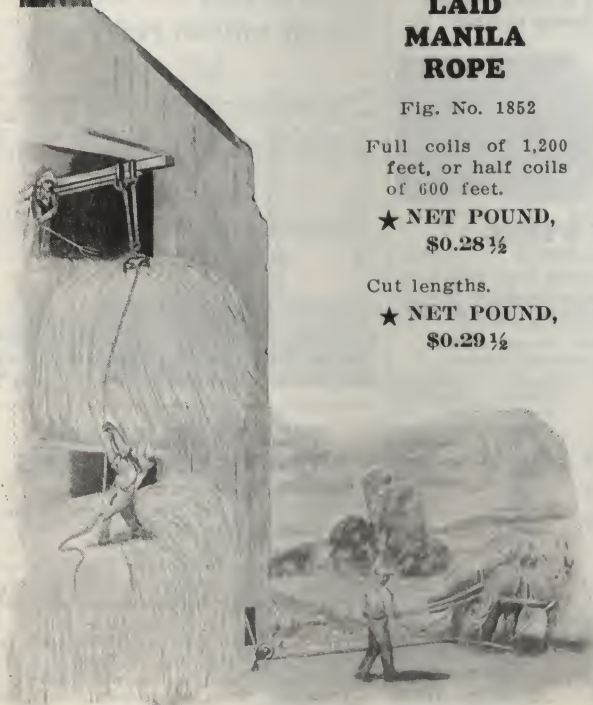
★ Net 100 Pound Bale, \$9.50

Spun Oakum. 1 to 19—5 Pound Cartons.

★ Net 5 Pound Carton, \$0.60

Rope Oakum.

★ Net 50 Pound Bale, \$5.50





# WIRE ROPE

## STANDARD HOISTING ROPE

6 Strands—19 Wires in Each Strand—1 Hemp Center



### CAST STEEL

Fig. No. 1830

Cast Steel Wire Rope is standard for ordinary work, being of a moderately high tensile strength and quite flexible. It is used in very many situations where there are no exceptionally severe conditions to overcome and excessive strains to be encountered.

Sheave diameter recommended is at least 45 times rope diameter.

#### LIST PRICES PER FOOT

Diam. Ins.	LIST FOOT	Approx. Circum- ference Inches	Approx. Weight, Pounds, A Foot	Breaking Strength In Tons
1/4	\$ .09	3/4	.10	2.1
5/16	.09 1/4	1	.16	3.2
3/8	.09 1/2	1 1/8	.23	4.5
1/2	.12	1 1/2	.40	7.7
5/8	.15 3/4	2	.63	11.8
3/4	.20 1/2	2 1/4	.90	16.8
7/8	.25	2 3/4	1.23	22.8
1	.31	3	1.60	29.5
1 1/8	.38	3 1/2	2.03	37
1 1/4	.46	4	2.50	46

1 to 99 Feet	.....	10% OFF
100 to 199 Feet	...	10-10% OFF
200 Feet or More	10-10-5%	OFF

### PLOW STEEL

Fig. No. 1831

Plow steel gets its name from a quality of steel originally used in steam plowing. The tensile strength developed in plow steel wire is high and this rope is successfully used where heavy work is performed under conditions where sufficiently large drums and sheaves are practicable.

Sheave diameter recommended is at least 45 times rope diameter.

#### LIST PRICES PER FOOT

Diam. Ins.	LIST FOOT	Approx. Circum- ference Inches	Approx. Weight, Pounds, A Foot	Breaking Strength In Tons
1/4	\$ .12	3/4	.10	2.5
5/16	.12 1/4	1	.16	3.9
3/8	.13	1 1/8	.23	5.5
1/2	.16	1 1/2	.40	9.4
5/8	.21	2	.63	14.4
3/4	.28	2 1/4	.90	20.6
7/8	.34 1/2	2 3/4	1.23	28
1	.43	3	1.60	36.5
1 1/8	.54	3 1/2	2.03	46
1 1/4	.65	4	2.50	56.5

1 to 99 Feet	.....	25% OFF
100 to 199 Feet	...	25-10% OFF
200 Feet or More	25-10-5%	OFF

## STUMP PULLING WIRE ROPE

6 Strands—19 Wires in  
Each Strand—1 Hemp  
Center



Fig. No. 2685

Superior in wearing quality to any rope manufactured. The wire from which this rope is made is the perfection of wire-making art. When its high tensile strength is considered (125 tons to the square inch) the ductility obtained is remarkable. It will withstand the most stringent tests. It is always uniform and dependable. The core is a number one hard laid manila rope, this preventing the rope from pulling in and thus distorting its lays when subjected to severe strains.

This Stump Pulling Rope is also made with independent wire rope center, Lang Lay for drag line cables. Add 15% to the list.

Sheave diameter recommended is at least 45 times rope diameter.

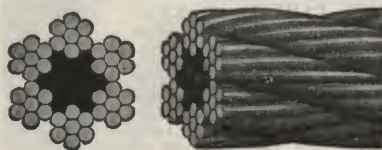
#### LIST PRICES PER FOOT

Diam. Ins.	LIST FOOT	Approx. Circum- ference Inches	Approx. Weight, Pounds, A Foot	Breaking Strength In Tons
1/4	\$ .13	3/4	.10	2.9
5/16	.13 1/2	1	.16	4.5
3/8	.14 1/2	1 1/8	.23	6.3
1/2	.15 1/2	1 1/2	.41	8.4
5/8	.17	1 3/4	.61	10.8
3/4	.19	2	.81	13.5
7/8	.22 1/2	2 1/4	1.01	16.6
1	.31	2 3/4	1.23	23.7
1 1/8	.39	3	1.60	32.2
1 1/4	.50	3 1/2	2.03	42
1 1/2	.62	4	2.50	53
1 3/4	.75			65

1 to 99 Feet	.....	10% OFF
100 to 199 Feet	...	10-10% OFF
200 Feet or More	10-10-5%	OFF

## HAULAGE AND TRANSMISSION ROPE

6 Strands—7 Wires in Each  
Strand—1 Hemp Center



### CAST STEEL

Fig. No. 1832

Also called Standing Rope. Used principally for mine and quarry haulage work, being made of coarse wires that stand much abrasive wear. Also used for bailing and drilling lines in well drilling work. Not as flexible as Standard Hoisting Rope and should not be subjected to much bending.

Sheave diameter recommended is at least 72 times rope diameter.

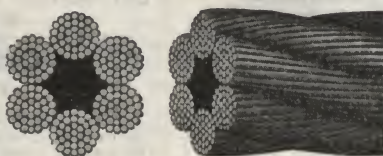
#### LIST PRICES PER FOOT

Diam. Ins.	LIST FOOT	Approx. Circum- ference Inches	Approx. Weight, Pounds, A Foot	Breaking Strength In Tons
1/4	\$ .04	3/4	.094	2
5/16	.04 1/2	1	.15	3.1
3/8	.05 1/4	1 1/8	.21	4.3
1/2	.07	1 1/2	.29	5.8
5/8	.09	1 3/4	.38	7.5
3/4	.11 1/2	2	.48	9.4
7/8	.13 1/2		.59	11.5

1 to 99 Feet	.....	10% OFF
100 to 199 Feet	...	10-10% OFF
200 Feet or More	10-10-5%	OFF

## SPECIAL FLEXIBLE HOISTING ROPE

6 Strands—37 Wires in Each  
Strand—1 Hemp Center



### PLOW STEEL

Fig. 5302

For use where the rope must be more flexible than Standard Hoisting rope, especially in large diameters.

Sheave diameter recommended is at least 27 times rope diameter.

Diameter Inches	LIST FOOT	Approx. Weight, Pounds, A Foot	Breaking Strength In Tons
1/4	\$0.16	.10	2.4
5/16	\$0.16-1/2	.15	3.8
3/8	\$0.17	.22	5.3
7/16	\$0.17-3/4	.30	7.2
1/2	\$0.19	.39	9.2
9/16	\$0.22-1/2	.49	11.5
5/8	\$0.25	.61	14.0
3/4	\$0.34	.87	19.8
7/8	\$0.43	1.19	26.5
1	\$0.52-1/2	1.55	34.4
1-1/8	\$0.66	1.96	43.5
1-1/4	\$0.78	2.42	53.5
1-3/8	\$0.93	2.93	64.6
1-1/2	\$1.15	3.49	76.7

1 to 99 Feet	.....	25% OFF
100 to 199 Feet	...	25-10% OFF
200 Feet or More	25-10-5%	OFF

## WORKING LOADS SHEAVE DIAMETERS

The working of a wire rope for general purposes should not exceed one-fifth of the breaking strength. This means that the factor of safety should not be less than five. To determine the proper working load divide strength by proper safety factor.

The Average sheave diameters recommended are as follows:— For 6x7 rope, 72 times rope diameter; 6x19 rope, 45 times; 6x37 rope, 27 times; 8x19 rope 31 times.



# WIRE ROPE

## IRON HOISTING ROPE

**6 Strands—19 Wires in  
Each Strand—1 Hemp  
Center**

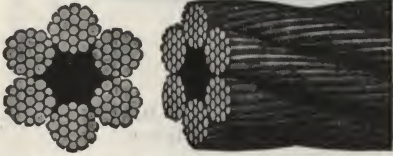


Fig. No. 1834

Iron rope is much more pliable, is softer, and of lower tensile strength than steel. It is used principally on elevators in the 6x19 construction, and also in very many other uses where the work is not too severe, and where a greater pliability than steel rope possesses is necessary.

Sheave diameter recommended is at least 45 times rope diameter.

### LIST PRICES PER FOOT

Diam. Ins.	LIST FOOT	Approx. Circum- ference Ins.	Approx. Weight, Pounds, per Ft.	Breaking Strength in Tons
1/4	\$ .06 1/2	3/4	.10	.97
5/16	.06 3/4	1	.16	1.43
3/8	.07 1/2	1 1/8	.23	2.05
7/16	.08 1/2	1 1/4	.31	2.76
1/2	.09 1/2	1 1/2	.40	3.57
5/8	.11 1/2	1 3/4	.51	4.49
3/4	.13 1/2	2	.63	5.52
7/8	.17	2 1/4	.90	7.86

1 to 99 Feet. . . . LIST PLUS 5%  
100 to 199 Feet. . . . 5% OFF  
200 Feet or More. . . . 10% OFF

## EXTRA FLEXIBLE HAY CARRIER ROPE

**8 Strands  
19 Wires in Each Strand  
1 Hemp Center**



Fig. 4232

### LIST PRICES EACH FOOT

Diam. Inch	List Foot	Approx. Circum- ference Inches	Approx. Weight, Pounds, per Foot	Breaking Strength in Tons
1/4	\$0.10	3/4	.09	1.3
5/16	.10 1/2	1	.20	3.
3/8	.12	1 1/8	.28	4.
7/16	.13 1/2	1 1/4	.36	5.
1/2	.17 1/2	1 1/2	.57	8.
5/8	.23	1 3/4	.82	11.5

1 to 99 Feet. . . . LIST PLUS 5%  
100 to 199 Feet. . . . 5% OFF  
200 Feet or More. . . . 10% OFF

## TILLER ROPE

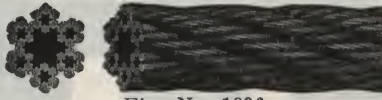


Fig. No. 1836

6 strands—42 wires to the strand—7 hemp cores. This is the most flexible wire rope made. On account of the fineness of the wires this rope should not be subjected to much abrasive wear. Galvanized rope should not be used where there is bending over sheaves and drums. Used extensively for hand ropes on passenger and freight elevators.

### LIST PRICES PER FOOT

Diam. In.	IRON LIST FOOT	Approx. Circum- ference Ins.	Approx. Weight, Pounds, per Ft.	Breaking Strength in Tons
1/4	\$ .07 1/2	3/4	.07	.625
5/16	.08	1	.11	.977
3/8	.09	1 1/8	.16	1.40
7/16	.10	1 1/4	.21	1.91
1/2	.11 1/2	1 1/2	.28	2.39

Feet Bright \*Galvanized  
1 to 99. . . . . PLUS 5% PLUS 5%  
100 to 199. . . . . LESS 5% LESS 5%  
200 or More. . . . . LESS 10% LESS 10%  
\*Add 25% to List For Galvanized Rope.

## SASH CORDS

Bright Iron or Galvanized

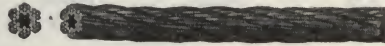


Fig. No. 1845

6 strands—7 wires to the strand—1 hemp core. An inexpensive cord for window weights, shades, automobile brakes, etc.

### LIST PRICES PER FOOT

Diam. In.	Bright Iron	Galv. Iron	Weight per Foot	Approx. Breaking Strain in Lbs.
1/4	\$0.01 1/4	\$0.01 3/4	.006	140
5/16	.01 1/2	.02	.013	315
3/8	.01 3/4	.02 1/4	.023	560
7/16	.02 1/2	.03	.053	1150
1/2	.03	.04	.094	2040

Feet Bright Galvanized  
1 to 99. . . . . 20% OFF 15% OFF  
100 to 199. . . . . 20-10% OFF 15-10% OFF  
200 or More 5% OFF 15-10-5% OFF

## GALVANIZED STEEL STRAND

Single or Double Galvanized—  
7 Wires Twisted Together



Fig. 1837

For smoke stack guy, electric light plants, street railways, signal cord, fencing and other purposes. Moderate strength.

Diam. Ins.	Approx. Str'gth, Lbs.	Approx. Weight, Lbs. per 1000 Feet.	LIST 100 FEET
1/8	540	31.8	\$1.00
3/16	1150	72.9	\$1.25
1/4	1900	121	\$1.75
5/16	3200	205	\$2.50
3/8	4250	273	\$3.50
7/16	5700	399	\$4.50
1/2	7400	517	\$5.50
5/8	11600	813	\$8.50

Feet Single Galv. Double Galv.  
1 to 99. 35% OFF 25% OFF  
100 to 199 35-10% OFF 25-10% OFF  
200 or More 35-10-5% OFF 25-10-5% OFF

## GALVANIZED IRON SHIP RIGGING AND GUY ROPES

**6 Strands—7 Wires in Each  
Strand—1 Hemp Center**



Fig. No. 1835

The first cost of galvanized iron rope is little more than hemp rope of equal strength, will last ten times as long, does not stretch or shrink with changes of weather, and is less bulky and weighs less than hemp rope of equal strength. It is not advisable to use galvanized rope to run over drums and sheaves. A—Approximate wt., lbs. per ft. B—Approximate strength in tons. E—Circumference of equal Manila rope.

### LIST PRICES PER FOOT

Diam. Ins.	LIST FOOT	Circum- ference Ins.	A	B	E
5/16	\$ .03 1/2	1	.15	1.36	2
3/8	.04 1/2	1 1/8	.21	1.95	2 1/4
7/16	.05 1/4	1 1/4	.29	2.64	2 1/2
1/2	.06 1/2	1 1/2	.38	3.43	3
5/8	.08	1 3/4	.48	4.32	3 3/4
3/4	.09	2	.59	5.30	4 1/4
7/8	.11 1/4	2 1/4	.84	7.10	4 3/4
1 1/8	.13 3/4	2 3/4	.99	8.86	5
1 1/4	.16 1/4	3	1.15	10.20	5 1/4
1 1/2	.18 3/4	3 1/2	1.50	13.20	5 3/4

1 to 99 Feet. . . . LIST PLUS 22%  
100 to 199 Feet. LIST PLUS 10%  
200 Feet or More. . . . PLUS 4%

## WIRE ROPE SLINGS



Fig. 5303

The great variety in size, shape, and kind of materials handled with slings, requires a wide range of types to suit individual operations. Slings can be made up in innumerable ways to suit the material handled.

ATLAS SLING (patented): Made of two endless elements of Strand Wire Rope, one left lay and the other right lay, spirally interwoven to run the full length of the sling, equally divided into ropes of opposite lays. Extremely flexible, non-kinking, non-spinning, full gripping, with maximum strength.

DREW SLING (patented): Made of one endless Strand Wire Rope braided to form a highly flexible, high strength, flat sling that resists kinking.

STANDARD MONARCH SLINGS: Made up of a single part Strand Wire Rope.

GROMMET MONARCH SLINGS: Cable-Layed having ONE WIRE; and Rope Layed having ONE STRAND.

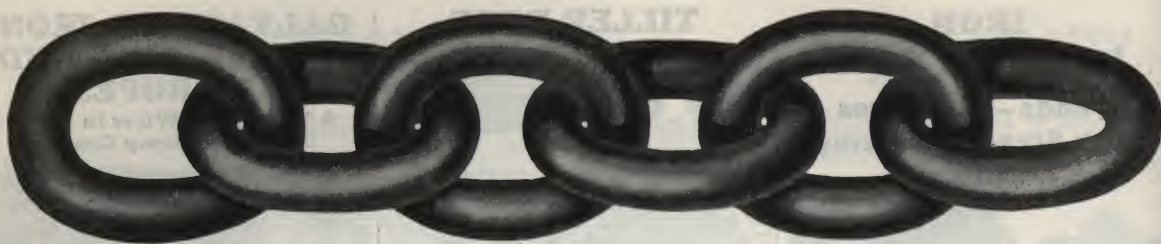
MULTI-PART MONARCH SLINGS: Made of several ropes laid parallel to each other and seized.

Complete Information On Request.



# WELDED STEEL COIL CHAIN

\*Material is all  $\frac{1}{16}$ -inch larger than trade size given. Dimensions and weights are approximate.



## PROOF STRAIGHT LINK COIL CHAIN

Fig. 1805

Sometimes called Common Chain. Made from open hearth basic steel. Compared with B. B. B. Chain it is longer in the link; welds not as long lapped or as strong. Regular finish is self-colored.

*SIZE CHAIN INCHES	Links Per Foot	Inside Length Inches	Inside Width Inches	Proof Test Pounds	Breaking Strain Pounds	Suggested Load Limit Pounds	Weight of 100 Feet, Pounds	** ★NET 100 POUNDS
$\frac{3}{16}$	12 $\frac{1}{2}$	6 $\frac{1}{64}$	1 $\frac{3}{32}$	1045	2090	520	40	\$15.60
$\frac{1}{4}$	12	1	1 $\frac{1}{2}$	1800	3600	900	70	\$14.85
$\frac{5}{16}$	10 $\frac{3}{4}$	1 $\frac{7}{64}$	1 $\frac{1}{2}$	2720	5440	1360	105	\$14.10
$\frac{3}{8}$	9 $\frac{3}{4}$	1 $\frac{15}{64}$	1 $\frac{5}{8}$	3720	7440	1860	158	\$12.45
$\frac{7}{16}$	8 $\frac{3}{4}$	1 $\frac{13}{64}$	1 $\frac{3}{4}$	5000	10000	2500	210	\$12.00
$\frac{1}{2}$	8	1 $\frac{11}{32}$	1 $\frac{13}{16}$	6600	13200	3300	275	\$11.85
$\frac{9}{16}$	6 $\frac{7}{8}$	1 $\frac{3}{4}$	1 $\frac{7}{8}$	8200	16400	4100	335	\$11.85
$\frac{5}{8}$	6 $\frac{3}{8}$	1 $\frac{17}{8}$	1	10000	20000	5000	410	\$11.85
$\frac{3}{4}$	5 $\frac{5}{8}$	2 $\frac{1}{8}$	1 $\frac{1}{8}$	14150	28300	7075	580	\$11.70
$\frac{7}{8}$	4 $\frac{3}{4}$	2 $\frac{1}{2}$	1 $\frac{3}{8}$	19200	38400	9600	780	\$11.55
1	4 $\frac{3}{8}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$	24800	49600	12400	1000	\$11.25
1 $\frac{1}{8}$	3 $\frac{7}{8}$	3 $\frac{1}{8}$	1 $\frac{3}{4}$	31200	62400	15600	1270	\$11.25
1 $\frac{1}{4}$	3 $\frac{3}{4}$	3 $\frac{1}{4}$	1 $\frac{7}{8}$	38400	76800	19200	1560	\$11.25

\*\*ADD 25% TO PRICE FOR 1 TO 49 POUNDS.

## B. B. B. STRAIGHT LINK COIL CHAIN

Fig. 4169

Sometimes called Crane Quality. B. B. B. Chain is a closer link chain than the common chain and has heavier, stronger welds. Breaking strains are 20% to 30% greater than Proof quality. Only the highest grade open hearth chain steel is used in its manufacture. Regular finish is blacked.

*SIZE CHAIN INCHES	Links Per Foot	Inside Length Inches	Inside Width Inches	Proof Test Pounds	Breaking Strain Pounds	Suggested Load Limit Pounds	Weight of 100 Feet, Pounds	** ★NET 100 POUNDS
$\frac{3}{16}$	15 $\frac{1}{2}$	2 $\frac{5}{32}$	$\frac{3}{8}$	1300	2600	650	43	\$17.40
$\frac{1}{4}$	14	2 $\frac{55}{64}$	$\frac{7}{16}$	2250	4500	1125	78	\$16.65
$\frac{5}{16}$	12	1	1 $\frac{1}{2}$	3400	6800	1700	115	\$15.90
$\frac{3}{8}$	11	1 $\frac{13}{32}$	1 $\frac{5}{8}$	4650	9300	2325	166	\$14.25
$\frac{7}{16}$	9 $\frac{3}{4}$	1 $\frac{17}{32}$	1 $\frac{1}{16}$	6250	12500	3125	220	\$13.80
$\frac{1}{2}$	9	1 $\frac{11}{32}$	$\frac{3}{4}$	8250	16500	4125	295	\$13.65
$\frac{9}{16}$	7 $\frac{3}{4}$	1 $\frac{19}{32}$	$\frac{5}{8}$	10250	20500	5125	350	\$13.65
$\frac{5}{8}$	7 $\frac{1}{8}$	1 $\frac{11}{16}$	$\frac{7}{8}$	12500	25000	6250	430	\$13.65
$\frac{3}{4}$	6 $\frac{3}{8}$	1 $\frac{7}{8}$	1	17700	35400	8850	615	\$13.50
$\frac{7}{8}$	5 $\frac{5}{8}$	2 $\frac{1}{4}$	1 $\frac{1}{4}$	24000	48000	12000	820	\$13.35
1	4 $\frac{3}{4}$	2 $\frac{9}{16}$	1 $\frac{3}{8}$	31000	62000	15500	1045	\$13.05
1 $\frac{1}{8}$	4 $\frac{1}{8}$	2 $\frac{7}{8}$	1 $\frac{5}{8}$	39000	78000	19500	1310	\$13.05
1 $\frac{1}{4}$	3 $\frac{7}{8}$	3 $\frac{1}{16}$	1 $\frac{3}{4}$	48000	96000	24000	1600	\$13.05

\*\*ADD 25% TO PRICE FOR 1 TO 49 POUNDS.

## TWIST LINK COIL CHAIN

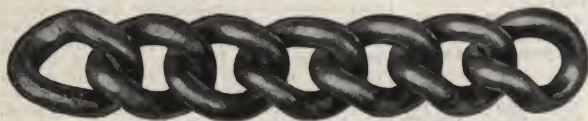


Fig. 4170

Larger sizes can be furnished, prices on application. Twist Link Chain is not proof-tested as this would remove the twist and otherwise deform the links. Twisting a chain in process of manufacture is considered sufficient test. Regular finish is self-colored.

PROOF GRADE						BB GRADE					
SIZE CHAIN INCHES	Links per Foot	Inside Length Inches	Inside Width Inches	Weight of 100 Feet, Pounds	** ★NET 100 POUNDS	SIZE CHAIN INCHES	Links per Foot	Inside Length Inches	Inside Width Inches	Weight of 100 Feet, Pounds	** ★NET 100 POUNDS
$\frac{3}{16}$	12 $\frac{1}{2}$	3 $\frac{1}{32}$	1 $\frac{5}{32}$	44	\$17.10	$\frac{3}{16}$	15 $\frac{1}{2}$	2 $\frac{5}{32}$	1 $\frac{5}{32}$	49	\$18.90
$\frac{1}{4}$	11 $\frac{1}{2}$	1 $\frac{1}{32}$	1 $\frac{1}{2}$	75	\$16.35	$\frac{1}{4}$	12 $\frac{1}{2}$	1 $\frac{1}{32}$	1 $\frac{1}{2}$	78	\$18.15
$\frac{5}{16}$	10	1 $\frac{13}{64}$	2 $\frac{5}{32}$	124	\$15.60	$\frac{5}{16}$	11 $\frac{3}{4}$	1 $\frac{1}{64}$	2 $\frac{1}{32}$	122	\$17.40
$\frac{3}{8}$	9 $\frac{1}{2}$	1 $\frac{9}{32}$	2 $\frac{5}{32}$	180	\$13.95	$\frac{3}{8}$	10 $\frac{1}{2}$	1 $\frac{5}{32}$	2 $\frac{5}{32}$	185	\$15.75
$\frac{7}{16}$	7 $\frac{1}{2}$	1 $\frac{19}{32}$	3 $\frac{1}{32}$	225	\$13.50	$\frac{7}{16}$	9	1 $\frac{1}{16}$	3 $\frac{1}{32}$	235	\$15.30
$\frac{1}{2}$	7 $\frac{1}{4}$	1 $\frac{21}{32}$	$\frac{7}{8}$	285	\$13.35	$\frac{1}{2}$	8	1 $\frac{1}{2}$	$\frac{7}{8}$	315	\$15.15

\*\*ADD 25% TO PRICE FOR 1 TO 49 POUNDS.



## IRON DREDGE CHAIN

For hazardous lifting. While especially made for use on steam shovels, dredges, cranes, etc., it is also extensively used for lifting in machine shops, foundries, factories, etc.



Fig. 4171

Empire grade. Hand forged. A thoroughly dependable chain of tough and fibrous material of a special analysis. Proof tested to the strains as shown. Tests are high enough to prove the chain and still not deform the links or affect the elastic qualities of the material. Test certificates will be furnished when requested. Dimensions given are approximate. Prices and information on request for sizes not listed.

ADD 25% TO PRICE FOR 1 TO 49 POUNDS

Size Chain Inches	Pitch Inches	Outside Width Inches	Outside Length Inches	Proof Test Pounds	Average Breaking Load, Lbs.	Suggested Load Limit, Lbs.	Average Weight Each Foot, Pounds	*NET 100 POUNDS
3/8	1 1/8	1 3/8	2 1/8	3,000	8,800	2,800	1 3/8	\$37.25
7/16	1 1/4	1 5/8	2 1/4	4,000	11,750	3,500	2 1/16	\$30.60
1/2	1 5/8	2 1/16	2 3/8	5,000	15,750	4,600	2 3/8	\$25.30
5/8	2 1/8	2 3/8	3	7,600	24,000	6,900	4 1/4	\$21.95
3/4	2 3/8	2 5/8	3 1/2	11,500	34,000	10,200	6	\$20.60
7/8	2 5/8	3 1/8	4	15,500	47,000	14,000	8	\$19.30
1	3 1/8	3 3/4	4 5/8	20,500	61,000	18,500	10 1/2	\$17.95
1 1/8	3 3/8	4 1/8	5 1/4	25,800	77,750	23,500	13 1/2	\$17.60
1 1/4	3 5/8	4 3/8	5 3/4	31,700	94,500	29,000	16 1/2	\$17.60
1 3/8	4 1/8	5	7	45,000	137,000	41,000	24	\$17.60
1 1/2	4 3/8	5 3/4	8	58,000	182,500	52,500	32	\$17.60
1 3/4	5 1/8	6 1/2	9 1/4	73,000	222,000	66,000	42	\$21.60

## IRON SLING CHAINS



Fig. 4173 Single

Fig. 4174 Double

Sterling hand made Iron Dredge Chain.

SAFE for dangerous overhead lifting. Test Certificates furnished on request.

Prices on request for larger chain sizes, other styles, sizes or lengths.

\* NET EACH COMPLETE

Chain Size Inches	Length Feet	Single Sling	Double Sling
3/8	6	\$5.86	\$10.92
7/16	8	\$8.53	\$16.25
1/2	10	\$12.20	\$23.90
5/8	12	\$19.15	\$36.00
3/4	14	\$30.90	\$59.50

### LONGER OR SHORTER LENGTHS

For longer lengths add; For shorter lengths subtract; the difference in feet times the price per foot of chain. Minimum charge is for 5 feet.

Chain Size Inches	★ NET EACH FOOT	
	For Single Sling	For Double Sling
3/8	\$0.45	\$0.90
7/16	\$0.52	\$1.04
1/2	\$0.60	\$1.20
5/8	\$0.80	\$1.60
3/4	\$1.15	\$2.30

## CHAIN GRAB HOOKS

Fig. 4119. Drop Forged.

Eye Size, Ins.	Chain Size, Ins.	Wt., 100 Lbs.	List, 100
13/16	1/4	26	\$ 9.70
15/16	5/16	39	12.50
17/16	3/8	67 1/2	17.60
19/16	7/16	98	23.00
21/16	1/2	122	31.30
23/16	5/8	244	59.00
25/16	3/4	404	90.00
1 1/8	7/8	1023	260.00
1 3/8	1	1492	420.00

DISCOUNT ..... 25% OFF

## LOG OR GENERAL PURPOSE CHAIN

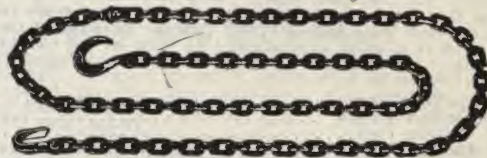
Fig. 4175

Hook, Chain and Hook

Fig. 4176

Ring, Chain and Hook

Specify number, size and length. Weights are approximate.



CHAIN SIZE INCHES	10 Feet, Weight, Pounds	12 Feet, Weight, Pounds	14 Feet, Weight, Pounds	16 Feet, Weight, Pounds	* NET 100 POUNDS
1/4	8	9	10	12	\$17.10
5/16	11	13	15	17	\$16.35
3/8	17	20	23	26	\$14.70
7/16	23	27	31	35	\$14.25
1/2	29	34	40	45	\$14.10
5/8	39	46	52	59	\$14.10

## END OPEN LAP LINKS



Fig. 4177

\* NET GROSS

Size Inches	2 Inch Inside Length	2 1/2 Inch Inside Length	3 Inch Inside Length
1/4	\$2.25	\$2.50	\$2.75
5/16	\$2.90	\$3.15	\$3.50
3/8	\$3.95	\$4.45	\$5.05
7/16	\$5.15	\$5.50	....
1/2	\$6.25	\$7.10	\$8.30
9/16	\$8.40	\$8.90	\$9.85
5/8	\$9.85	\$11.05	\$12.75

## CHAIN REPAIR DROP FORGED SWING LINKS

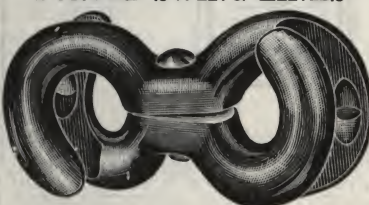


Fig. No. 3300	Wt., Lbs.	LIST DOZEN
Size, Inches	Per Dozen	
1/4	7 1/2	\$ 2.20
5/16	1 1/2	\$ 2.40
3/8	2 1/2	\$ 2.70
7/16	3 1/2	\$ 3.50
1/2	5 1/4	\$ 4.30
5/8	11	\$ 8.00
3/4	19	\$11.00

DISCOUNT { 1 to 11.... 25% OFF  
12-More.. 33 1/3% OFF

## COLD SHUTS (Repair Links)



Fig. 1806

For repairing broken chain or for emergency repairs.

Size Chain, Inches	* NET 100	Size Chain, Inches	* NET 100
1/4	\$3.40	5/8	\$9.70
5/16	\$3.60	3/4	\$10.45
3/8	\$4.00	7/8	\$35.20
7/16	\$4.40	1	\$51.20
1/2	\$5.80		

## THE "MISSING LINK"

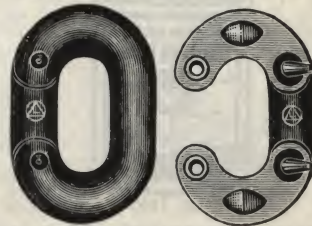


Fig. 4172

Drop forged steel. Self-colored.

Size Inches	Overall Dimensions Inches	Breaking Strain Tons	List Dozen
3/16	1 5/8 x 3/4	1.2	\$ 1.15
1/4	1 1/2 x 1	2.8	1.15
5/16	1 1/4 x 1 1/8	4.2	1.20
3/8	2 1/8 x 1 3/8	5.6	1.50
7/16	2 3/8 x 1 1/2	7	1.80
1/2	2 5/8 x 1 3/4	8	2.00
5/8	3 1/8 x 2 1/8	11.5	3.20
3/4	3 3/8 x 2 1/2	17	4.50
7/8	4 1/2 x 2 15/16	19.2	6.75
1	5 x 3 1/4	24.2	11.00

DISCOUNT { 1 to 11.... 25% OFF  
12 or More..... 33 1/3% OFF



# ARMSTRONG PAINT

Guaranteed to Outwear Any Other Paint of Equal Price When Applied and Used Under the Same Conditions

## ARMSTRONG READY MIXED HOUSE PAINT



Made of White Lead, Titanox and Zinc.  
Guaranteed to give great Durability, Hiding, Spreading, Color and to Brush Easy.

### - COLORS -

1334 Outside White	1374 Light Buff
1333 Inside White	1355 Ivory Tint
1335 Black	1360 Tan
1366 Old Ivory	1330 Brown
1341 Cream	1358 Chocolate
1340 Light Yellow	1337 Citron
1359 Straw	1344 Light Green
1346 Lead	1338 Trellis Green
1339 Silver Gray	1372 Sash Green
1348 Pearl Gray	1365 Pale Blue
1368 Sand Stone	

Fig. 3853

Guaranteed. Extra high grade when compared with ordinary paint. Not only covers more surface and spreads further, but dries with a higher luster and the pigments possess greater brilliance. In formulating this paint, the manufacturer has produced a paint that will insure extra long life so that when the time comes for re-painting a good foundation remains for the new coat. Will not flake, crack or peel off, thus eliminating the expense of removing the old coat with torch or scraper, before new paint can be applied. The liberal spreading capacity of this house paint makes it a most economical as well as an extremely protective house covering. All colors. Specify color. Color card furnished on request.

55 Gallon Drum .....	★ Net Gallon, \$2.60
30 Gallon Drum .....	★ Net Gallon, \$2.65
5 Gallon Can .....	★ Net Gallon, \$2.70
1 Gallon Can .....	★ Net Gallon, \$2.77
1 Quart Can .....	★ Net Quart, \$0.80

## ARMSTRONG QUICK DRY ENAMEL

### - COLORS -

91V Clear	837 Ivory
836 White	841 Yellow
849 Black	838 Mocha
852 French Gray	842 Orange
822 Lettuce Green	848 Brown
851 Coral Pink	853 Azure
821 Cream	844 Royal Blue
843 Chinese Red	850 Nile Green
840 Orchid	839 Jade Green
	845 Rich Green



Fig. 4058

For general purposes. Quick drying, requiring only two to four hours. Brilliant. Long lasting. Possesses all the desirable qualities of lacquer plus the fact it does not have a disagreeable odor. Flows out smoothly. Brush marks disappear. Easy to apply. Requires no special undercoat and one coat is generally sufficient except on new surfaces.

5 Gallon Can. ....	★ Net Gallon, \$2.90	1/2 Gallon Can. ....	★ Net Can, \$1.65
1 Gallon Can. ....	★ Net Gallon, \$3.00	1 Quart Can. ....	★ Net Quart, \$1.00
		1 Pint Can. ....	★ Net Pint, \$0.60

## ARMSTRONG ARM-GLO SEMI-GLOSS FINISH



Fig. 4059

A semi-gloss enamel with a rich, dull glow. Can be washed without harm to finish or color and wears satisfactorily on all surfaces. Not discolored by temperature changes, smoke or fumes. Easy to apply, flows out smoothly. Leaves no brush marks.

193 White	196 Pink
195 Cream	197 Lettuce Green
194 Ivory	198 Silver Gray
187 Light Buff	201 Primrose Green
202 Buff	200 Pale Blue
188 Orchid	
5 Gallon Can. ....	★ Net Gallon, \$2.25
1 Gallon Can. ....	★ Net Gallon, \$2.35
1/2 Gallon Can. ....	★ Net Can, \$1.30
1 Quart Can. ....	★ Net Quart, \$0.75

## ARMSTRONG ARMELLO FLAT WALL FINISH



Fig. 4060

Mellow, velvety finish. Does not rub off, flake or powder. Can be washed with soap and water. Spreads easily and flows out smoothly. Gallon covers 235 square feet, two coats; 450 square feet, one coat.

120 White	127 Orchid
137 Ivory	136 Silver Gray
125 Cream	118 Light Blue
105 Buff	128 Silk (Lt.) Green
112 Pink	
5 Gallon Can. ....	★ Net Gallon, \$1.85
1 Gallon Can. ....	★ Net Gallon, \$1.90
1/2 Gallon Can. ....	★ Net Can, \$1.05
1 Quart Can. ....	★ Net Quart, \$0.60

SPECIFY:  
Slow Dry;  
or  
4 Hour  
Dry;  
and Color

## KILBOURN HOUSE PAINT



Fig. 3852

A very good grade of protective coating for houses very moderately priced. Very durable and gives a high glossy finish, which will not crack, peel or rub off, and will retain its color. Spreads well, and covers a great deal of surface.

945 Inside White	932 Blue
946 Outside White	907 Pale Blue
947 Black	

917 Light Gray	926 Ivory
912 Blue Gray	935 Cream
901 Gray	902 Colonial Yellow
908 Warm Gray	
927 Medium Gray	
928 Dark Gray	914 Pink

924 Green Tint	911 Drab
922 Pea Green	900 Straw
923 Moss Green	916 Tan
920 Sash Green	930 Brown
	931 Cottage Brown

55 Gallon Drum. . .	★ Net Gallon, \$1.45
30 Gallon Drum. . .	★ Net Gallon, \$1.50
5 Gallon Can. . . .	★ Net Gallon, \$1.55
1 Gallon Can. . . .	★ Net Gallon, \$1.65
1 Quart Can. . . . .	★ Net Quart, \$0.55

## FULTON 4-HOUR ENAMEL

Fig. 5343

A general purpose low priced enamel for use where quick drying, brilliancy, and long lasting results are desired.

1085 White	1086 Black
1084 Ivory	1082 Light Gray
1081 Cream	1073 Rich Green
1083 Yellow	1087 Apple Green
1077 Orange	1079 Jade Green
1078 Orchid	1076 Azure Blue
1080 Rose Pink	1075 Royal Blue
1088 Brown	1074 Chinese Red
5 Gallon Can. . . .	★ Net Gallon, \$2.15
1 Gallon Can. . . .	★ Net Can, \$2.20
1/2 Gallon Can. . . .	★ Net Can, \$1.25
1 Quart Can. . . . .	★ Net Can, \$0.70

## ARMSTRONG QUICK DRY PORCH & FLOOR ENAMEL



Fig. 4061

Waterproof. Wearproof. Weatherproof. For interior and exterior floors, porches, concrete floors, etc. Tile-like elastic coating which dries in 4 hours to a high gloss. Withstands abuse and resists severe weather, heat, cold, rain, snow, without chipping or peeling.

276 Dust	285 Gray
286 Lead	284 Tan
290 Maroon	289 Brown
278 Buff	281 Light Oak
5 Gallon Can. ....	★ Net Gallon, \$2.35
1 Gallon Can. ....	★ Net Gallon, \$2.45
1/2 Gallon Can. ....	★ Net Can, \$1.30
1 Quart Can. ....	★ Net Quart, \$0.75



# ARMSTRONG PAINT

Guaranteed to Outwear Any Other Paint of Equal Price When Applied and Used under Same Conditions.

## ARMORITE GENERAL UTILITY PAINT

### 100 PERCENT PURE ASPHALT



Fig. 3837

General utility. Suitable for any metal surfaces, in fact any surface requiring protection from the elements. Will give the utmost protective service at the least cost. Excellent protection against various forms of moisture, smoke gases, acids,

chemical fumes, etc. It has a good body, covers well in one coat, dries in about 18 hours. 1 gallon, 1 coat, will cover 450 square feet of metal surface.

### ★ NET GALLON

	Jet Black	Dark Red	Olive Green
55 Gallon Drum.....	\$1.50	\$1.65	\$2.00
30 Gallon Drum .....	\$1.00	\$1.70	\$2.10
5 Gallon Can .....	\$1.70	\$1.80	\$2.20
1 Gallon Can .....	\$1.75	\$1.85	\$2.25

## BLACK LIQUID ASBESTOS ROOF CEMENT

Fig. 3838



Black protective cement, permanently fills leaks and cracks, forms a firm but flexible coating that will not crack, blister or peel. Not affected by heat or cold. 1 gallon covers about 50 to 75 square feet of metal roofing; 50 square feet of felt; and 50 square feet of gravel.

### 55 Gallon Barrel ★ Gallon, \$0.70

30 Gallon Drum .....	★ Net Gallon, \$0.80
5 Gallon Can .....	★ Net Gallon, \$0.85
1 Gallon Can .....	★ Net Gallon, \$0.90

## BLACK PLASTIC ASBESTOS ROOF CEMENT

Fig. 3839

Black. Excellent for stopping cracks, small holes, etc. Very adhesive, forming a tough skin over the top. Will not run or crack. Heat or cold will not affect it. Will not affect the taste of water. Usually applied with a trowel about 1/16 of an inch thick. 10 pound cans. 1 to 9 Cans.... ★ Net 10 Pounds, \$1.20  
10 Cans or more..... ★ Net 10 Pounds, .90



## ARMSTRONG ROOF COATING

Fig. 3854

Refined coal tar base. Made especially for roofings, but is also an excellent coating for felt, canvas, iron, board or shingle roofs. A gallon covers 75 to 100 square feet with one heavy coat. A roof, when first laid, should have two coats.

Drum 55 gallons .....	★ Net Gallon, \$0.29
5 Gallons .....	★ Net Gallon, \$0.58
1 Gallon .....	★ Net Gallon, \$0.75

## ARMSTRONG ALUMINUM PAINT

Fig. 5079. SPAR VARNISH ALUMINUM

A Spar varnish vehicle and aluminum paste. Made to Federal Specifications. For interior or exterior use on any surface. In double compartment cans.

5 Gallon Can.....	★ Net Gallon, \$3.15
1 Gallon Can.....	★ Net Gallon, \$3.35
1 Quart Can.....	★ Net Quart, \$1.10

Fig. 5080. HEAT RESISTING ALUMINUM

Made with a vehicle especially formulated to withstand temperatures up to approximately 600 degrees Fahrenheit. In double compartment can.

5 Gallon Can.....	★ Net Gallon, \$3.15
1 Gallon Can.....	★ Net Gallon, \$3.35
1 Quart Can.....	★ Net Quart, \$1.10

Fig. 5081. GENERAL USE ALUMINUM

A good quality bronzing liquid and aluminum paste for general use. In double compartment can.

5 Gallon Can.....	★ Net Gallon, \$2.80
1 Gallon Can.....	★ Net Gallon, \$3.00
1 Quart Can.....	★ Net Quart, \$1.00

## HOT SURFACE PAINT

Fig. 3840



Mfrs. 744. Best quality available. Could be used where there is contact with flames. Will stand 700 degrees of heat. Excellent for any hot surface where ordinary paint will not stand. For boilers, engines, smokestacks, chimneys, etc. Covers 275 square feet to each gallon, 1 coat.

### ★ NET GALLON

Drum .....	\$1.50
30 Gal. Drum .....	\$1.55
5 Gallon Can.....	\$1.65
1 Gallon Can.....	\$1.70

## ROOF AND IRON PAINT

Fig. 3841

Mfrs. 577. A good durable paint at a moderate cost. Will stand up for approximately six months. For smoke stacks, boiler pumps, steam pipes, etc. Easy to work and apply.

55 Gallon Drum.....	★ Net Gallon, \$0.40
30 Gallon Drum .....	★ Net Gallon, \$0.45
5 Gallon Can .....	★ Net Gallon, \$0.60
1 Gallon Can .....	★ Net Gallon, \$0.65

## BLACK HEAT PROOF VARNISH

Fig. 3842

Mfrs. No. 88. Medium grade. Durable. For smoke stacks, boiler pumps, steam pipes, etc. Will stand a great degree of heat. Is oily and easy to brush.

55 Gallon Drum.....	★ Net Gallon, \$0.50
30 Gallon Drum .....	★ Net Gallon, \$0.60
5 Gallon Can .....	★ Net Gallon, \$0.70
1 Gallon Can .....	★ Net Gallon, \$0.75

## ROOF AND IRON PAINT

Fig. 3843

Mfrs. 106. High grade. Stands excessive heat. Very durable, and gives a good appearance. For smoke stacks, boiler pumps, steam pipes, etc. Oily and easy to brush.

55 Gallon Drum.....	★ Net Gallon, \$0.60
30 Gallon Drum .....	★ Net Gallon, \$0.65
5 Gallon Can .....	★ Net Gallon, \$0.75
1 Gallon Can .....	★ Net Gallon, \$0.80

## BLACK ANTI-CORROSION COATING

This heavy black liquid coating will solve most corrosion problems. It will not give off any taste or odor to liquids that come in contact with it, therefore, it can be used on interior of tanks, as well as exterior. This coating will resist the action of all fumes, brines and acids, excepting concentrated nitric or sulphuric acid and concentrated caustic soda. This gives a large field for this material on supply tanks of every description, whether wood, concrete or metal. A coating one-sixteenth inch thick requires 1 gallon for each 25 square feet of surface, 1 coat.

55 Gallon Drum.....	★ Net Gallon, \$1.35
30 Gallon Drum .....	★ Net Gallon, \$1.40
5 Gallon Can .....	★ Net Gallon, \$1.50
1 Gallon Can .....	★ Net Gallon, \$1.55



Fig. 3844

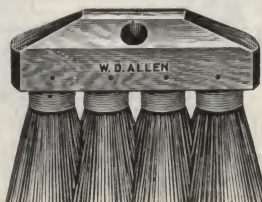
## ROOFING BRUSHES

Fig. 1864

(4 Knot Illustrated)

### ★ NET DOZEN

4 Knot .....	\$9.00
3 Knot .....	\$6.75





# ARMSTRONG PAINT

Guaranteed to Outwear Any Other Paint of Equal Price When Applied and Used Under the Same Conditions.

## GENERAL UTILITY PAINT



Fig. 3845

Ready mixed. Heavy body. Linseed oil can be added. Durable.

### COLORS

1687 Black	1686 Outside White
1692 Ivory	1685 Inside White
1693 Cream	1682 Light Brown
1694 Yellow	1683 Dark Brown
1698 Tan	1674 Green Tint
1672 Straw	1697 Pea Green
1696 Pink	1691 Bronze Green
1699 Red	1676 Sky Blue
1695 Blue	1671 Pearl Gray
1680 Lead	1673 Medium Gray
	1684 Dark Gray

55 Gal. Drum...★ Gal., \$1.20

30 Gal. Drum★ Net Gallon, \$1.30

5 Gallon Can...★ Net Gallon, \$1.40

1 Gallon Can...★ Net Gallon, \$1.45

## TINNER'S RED & GUTTER PAINT

Fig. 3846

No. 1—Slow Dry  
No. 2—Fast Dry

Economical protection for gutters, down spouts and sheet metal work. Dries to a hard, glossy film. Very durable.



Container	★ NET	No. 1	No. 2
55 Gallon	Gallon	\$1.35	\$1.00
30 Gallon	Gallon	\$1.40	\$1.05
5 Gallon	Gallon	\$1.45	\$1.10
1 Gallon	Gallon	\$1.55	\$1.20
1 Quart	Quart	\$0.55	\$0.45

## MACHINERY ENAMEL

For Machinery and Implements



Fig. 3847

Machinery enamels are subjected to very severe uses, due to their contact with many different elements—salt, oil, water, ice, etc. These enamels are oil proof, heat resistant, brine proof, and are excellent for use on trucks and pumps. It gives a tough, durable, and handsome finish.

### Colors

White	Gray
Black	Orange
Carmine	Light Tan
Blue	Vermillion
Deep Blue	Rich Green
Brown	Yellow

55 Gal. Drum...★ Gallon, \$2.30

30 Gallon Drum...★ Net Gallon, \$2.35

5 Gallon Can...★ Net Gallon, \$2.40

1 Gallon Can...★ Net Gallon, \$2.45

1 Quart Can...★ Net Quart, \$0.50

## BLACK SCREEN PAINT

Fig. 4475

Jet black. High gloss. Will not clog the mesh. Prevents rust spots. For either wire or for wood frames.

1 Gallon Can...★ Net Gallon, \$0.95

1 Quart Can...★ Net Quart, \$0.35

## MILL WHITE GLOSS



Fig. 3849

An extra durable white finish for factory rooms, hallways, etc. Will keep color. Washable.

55 Gal. Drum...★ Gallon, \$2.35

30 Gallon Drum...★ Net Gallon, \$2.40

5 Gallon Can...★ Net Gallon, \$2.47

1 Gallon Can...★ Net Gallon, \$2.60

1/2 Gallon Can...★ Net Can, \$1.50

## MILL WHITE FLAT

Fig. 3850

Extra durable finish for factory rooms, hallways, or corridors, etc. Will not turn yellow. Washable.

55 Gal. Drum...★ Gallon, \$1.70

30 Gallon Drum...★ Net Gallon, \$1.78

5 Gallon Can...★ Net Gallon, \$1.85

1 Gallon Can...★ Net Gallon, \$1.90

## UTILITY SPAR VARNISH



Fig. 4056

Long oil pure gum varnish for every use, interior and exterior. Heel-proof and waterproof. Resists hot or cold water, frequent washing, snow, sleet, rain. Easily worked. Guaranteed.

5 Gallon Can...★ Gallon, \$1.90

1 Gallon Can...★ Net Gallon, \$2.00

1/2 Gallon Can...★ Net Can, \$1.25

1 Quart Can...★ Net Quart, \$0.70

## CONCRETE FLOOR PAINT

Fig. 3851

A coating for the treatment of concrete floors. Water proof. Dust proof. Will harden the surface. It dries with a hard glossy finish. Prevents the absorption of dirt and stains. Readily cleaned and washed. 1 gallon applied to an average surface will cover 350 square feet, 1 coat; or 225 square feet, 2 coats.

Colors: Tan, Dust, Pearl, Slate, Brown, Maroon, Light Oak.

55 Gal. Drum...★ Gallon, \$2.25

30 Gallon Drum...★ Net Gallon, \$2.30

5 Gallon Can...★ Net Gallon, \$2.35

1 Gallon Can...★ Net Gallon, \$2.45

## PAWNEE HEAVY BODY BARN PAINT



Fig. 4054

Heavy body. To be thinned down by adding 1/2 gallon of linseed oil to one gallon of paint, this will cover 350 square feet of surface, two coats. Guaranteed. Attractive and serviceable. Colors: 482—Red; 485—Brown; 473—Gray; 487—Olive Green.

55 Gal. Drum...★ Gallon, \$1.40

30 Gallon Drum...★ Net Gallon, \$1.45

5 Gallon Can...★ Net Gallon, \$1.50

1 Gallon Can...★ Net Gallon, \$1.60

## ARMSTRONG READY MIXED BARN PAINT

Fig. 4055

Made from high grade mineral pigments ground in pure linseed oil. Gives maximum service and protection against sun, heat, rain, snow, and cold. Guaranteed. Long lasting colors: 480—Red. 479—Gray. 483—Brown. 486—Yellow.

55 Gal. Drum...★ Gallon, \$1.65

30 Gallon Drum...★ Net Gallon, \$1.70

5 Gallon Can...★ Net Gallon, \$1.76

1 Gallon Can...★ Net Gallon, \$1.86

## EVRYUSE 4 HOUR SPAR VARNISH



Fig. 4057

For interior or exterior use. Elastic. Tough. Lustrous. 4 hour quick drying. Beautifies and preserves. Can be rubbed to a dull finish or polish. Guaranteed.

5 Gallon Can...★ Gallon, \$2.75

1 Gallon Can...★ Net Gallon, \$2.80

1/2 Gallon Can...★ Net Can, \$1.50

1 Quart Can...★ Net Quart, \$0.80



# VALDURA PAINTS AND UNDERCOATS

## VALDURA DARYWHITE ENAMEL

White Only—Non Yellowing

Fig. 5230

A non-yellowing, high gloss, heavy duty interior enamel that is especially made to withstand steam, moisture, heat, LACTIC ACID, other acids, ammonia fumes, etc. For dairies, meat and food packing plants, distilleries, breweries, laundries, etc. One gallon covers up to 500 square feet in one coat. It sets in one hour and is hard in 5 hours under normal conditions.

### ★ NET GALLON—WHITE ONLY

Barrel, 55 gallons.....	\$4.60
1/2 Barrel, 35 gallons.....	\$4.65
Drum, 20 gallons.....	\$4.75
5 Gallon Steel Pail.....	\$5.00
1 Gallon Can.....	\$5.60

### ★ NET CAN—WHITE ONLY

1/2 Gallon .....	\$3.25
1 Quart Can .....	\$2.00
1 Pint Can.....	\$1.15
1/2 Pint Can.....	\$0.70
1/4 Pint Can.....	\$0.40
1/8 Pint Can.....	\$0.30

## U-IN-TAH BLACK HEAT-RESISTING PAINT

Will stand 600° Fahrenheit

Fig. 5233

A special formula of Asphalt Paint made from pure Gilsonite Asphalt and special heat resisting oils. Ideal for smoke stacks, boiler fronts, steam pipes, kettles, locomotives, and incinerators. Should be applied to a cool surface and then gradually heated. Dries with high gloss. Contains no coal tar. Apply by brush or spray.

### ★ NET GALLON—BLACK ONLY

Steel Barrel, 55 Gallons.....	\$2.30
Steel 1/2 Barrel, 35 Gallons.....	\$2.35
Steel Drum, 20 Gallons .....	\$2.45
5 Gallon Steel Pail.....	\$2.50
1 Gallon Can.....	\$2.75

## VALDURA EXTERIOR PRIMER UNDERCOATER

White Only—A Blister-Proof Primer

Fig. 5236

For new and unpainted wood and an undercoat for use over old paint. It produces excellent two coat work and has good hiding power.

### ★ NET GALLON—WHITE ONLY

Steel Barrel, 55 Gallons.....	\$3.20
Steel 1/2 Barrel, 35 Gallons.....	\$3.25
Steel Drum, 20 Gallons.....	\$3.35
5 Gallon Steel Pail .....	\$3.40
1 Gallon Can .....	\$3.65

### ★ NET CAN—WHITE ONLY

1/2 Gallon Can.....	\$2.05
1 Quart Can .....	\$1.25

## WHITE SEAL COAT

For Interior or Exterior Use

Fig. 5087, Mrs. E-5594

For sealing the porous surface of plaster, rough wallboard, stucco, brick or exterior surfaces. It seals pores, stops suction, and provides an ideal base over which to apply Enamel or Asphalt Aluminum Paint. Not for use as a decorative finish. One gallon covers from 375 to 425 square feet depending on the porosity of the surface. Dries in 24 hours. Highest possible resistance to alkali.

### ★ NET GALLON—WHITE ONLY

Steel Barrel, 55 Gallons.....	\$3.20
Steel 1/2 Barrel, 35 Gallons.....	\$3.25
Steel Drums, 20 Gallons.....	\$3.35
5 Gallon Steel Pail.....	\$3.40
1 Gallon Can .....	\$3.65

## VALDURA HIGH HEAT- RESISTING ALUMINUM

Will stand 1000° Fahrenheit

Fig. 5231

Gives highly-heated metallic surfaces a beautiful, silvery brilliancy. Apply to metal surfaces only, cleaned to the bright metal, at normal temperatures. Allow it to set a few hours before temperature is raised. Second coat may be applied after the first has been subjected to temperature extremes. Used for manufactured articles, stacks, stoves, boiler fronts, and other heated metallic surfaces. Withstands abrasion remarkably well. May be dipped or sprayed by thinning 10% to 20% with naphtha.

### ★ NET GALLON—ALUMINUM

Steel Barrel, 55 Gallons.....	\$4.55
Steel 1/2 Barrel, 35 Gallons.....	\$4.60
Steel Drum, 20 Gallons.....	\$4.75
5 Gallon Steel Pail.....	\$4.98
1 Gallon Can.....	\$5.50

### ★ NET CAN—ALUMINUM

1 Quart Can.....	\$2.00
1 Pint Can.....	\$1.10
1/2 Pint Can.....	\$0.56
1/4 Pint Can.....	\$0.36

## VALDURA ENAMELIZED METAL PRIMER

Red Only For Metal

Fig. 5234

The ideal prime coat combination of Valdura Processed Tung Oil and zinc chromate for metal surfaces constantly subjected to extremely damp, wet, and foggy conditions. For use under Valdura Enamelized (Tung Oil) Paint, Asphalt Aluminum Paint, Asphalt Paint, or Decorative Enamel, or other quality paint.

### ★ NET GALLON—RED ONLY

Steel Barrel, 55 Gallons.....	\$3.95
Steel Barrel, 35 Gallons.....	\$4.00
Steel Drum, 20 Gallons.....	\$4.10
5 Gallon Steel Pail.....	\$4.15
1 Gallon Can.....	\$4.40

### ★ NET CAN—RED ONLY

1/2 Gallon Can.....	\$2.40
1 Quart .....	\$1.40

## SARVA ACID-RESISTING PAINT AND COMPOUND

Resists Both Acid and Alkali Conditions

Fig. 5232

For interior use where protection against extreme acid conditions is essential. Under extreme conditions, one coat of Sarva Liquid should be followed by two coats of heavy-duty Sarva Compound. Both Compound and Liquid spread readily with an ordinary brush. The liquid covers 300 to 400 square feet to each gallon on smooth surfaces and dries in about 8 hours. Compound covers 150 to 175 square feet and dries in about 10 hours.

### ★ NET GALLON— Black Red Black Paint Paint Comp'd

Barrel, 55 gal....	\$1.65	\$2.10	\$1.65
1/2 Barrel, 35 gal....	\$1.70	\$2.15	\$1.70
Drum, 20 gallon....	\$1.80	\$2.25	\$1.80
5 Gallon Pail....	\$1.85	\$2.30	\$1.85
1 Gallon Can....	\$2.10	\$2.55	\$2.10

## VALDURA DECORATIVE UNDERCOAT

Made in Light Sky Blue and White

Fig. 5235

The ideal undercoat to fill up hair cracks and stop suction on extremely porous surfaces. For interior work only. Necessary as a first coat on fine work under Valdura Decorative Enamel or Valdura Asphalt Aluminum Paint. Can even be used as a finish coat. A gallon covers from 300 to 350 square feet, unless the surface is extremely porous. It dries in 24 hours.

### ★ NET GALLON—Lt. Blue or White

5 Gallon Pail .....	\$3.50
1 Gallon Can .....	\$3.75

### ★ NET CAN—Lt. Blue or White

1 Quart Can .....	\$1.35
1 Pint Can .....	\$0.75
1/4 Pint Can .....	\$0.25

## PUTTY KNIVES

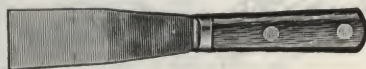


Fig. 5237

The blade is 3-5/8 by 1-1/4 inches. Tempered, polished and cross polished. Kingwood handle. White metal bolster. Steel compression rivets.

Stiff Blade .....	LIST EACH, \$0.38
Half Elastic .....	LIST EACH, \$0.42

DISCOUNT ..... 25% OFF

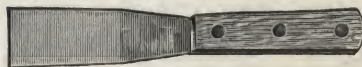


Fig. 5238

The blade is 3-3/4 by 1-1/4 inches. Tempered and polished. Beechwood handle. Steel compression rivets.

Stiff Blade .....	LIST EACH, \$0.26
Half Elastic .....	LIST EACH, \$0.28

DISCOUNT ..... 25% OFF

## PAINTERS' SCRAPERS

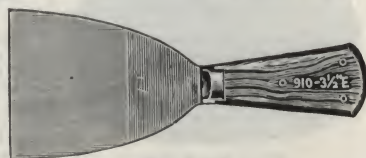


Fig. 5239

High quality carbon steel blade perfectly tempered, ground and polished. Cocobola handles fastened with steel pin rivets and white metal bolster.

Blade Width	Stiff	Half Elastic	Full Elastic
2-1/2	\$0.79	\$0.87	\$1.04
3	\$0.84	\$0.92	\$1.08
3-1/2	\$0.92	\$1.00	\$1.17
4	\$1.08	\$1.17	\$1.33

DISCOUNT ..... 25% OFF

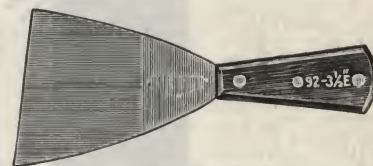


Fig. 5240

Finely tempered blade, perfectly ground and polished. Kingwood handle. Steel compression rivets. Tapered pattern.

Blade Width	Stiff	Elastic
Blade	Blade	Blade
3	\$0.63	\$0.71
3-1/2	\$0.68	\$0.77

DISCOUNT ..... 25% OFF



## ARMSTRONG POT LEAD COMPOSITION

INCREASES YOUR BOAT SPEED—W. D. Allen Are the National Exclusive Distributors



Fig. 4186

### INCREASES BOAT SPEED 10% TO 15%

This Pot Lead Composition is an anti-friction paint and is made especially for boat bottoms, keels, etc. It will increase the speed of any craft from 10% to 15% by reducing the skin friction.

### ACTS AS A SEALER

It also acts as a sealer and is far more durable than the old method of using varnish which has a tendency of cracking. A finished job can be done with one coat. Apply with a brush and polish with dry waste. Gives a rock like finish to the surface.

★NET  
QUART **\$1.15**

★NET  
HALF GALLON **\$2.10**

### PURE GRAPHITE BASE

Consists of just the proper amount of PURE GRAPHITE for a highly polished result and is combined with the best known wood preservative. Lead color.

### GUARANTEED

W. D. Allen Manufacturing Company are the sole distributors of the Armstrong Pot Lead Composition for the manufacturer and we give a full guarantee as to durability, service and application. Age will not affect contents in the can.

★NET  
GALLON **\$4.00**

## HERCULES DYNAMITE

### HERCULES L. F. EXTRA (AMMONIA) DYNAMITE (LOW FREEZING)

The extra grade may be considered as the explosive best adapted for general all-around work. It is less expensive than Nitroglycerine dynamite and gives a more heaving than shattering action. It is recommended for mining, quarrying, digging wells, road and railroad construction, clay blasting, mudcapping, and most agricultural work. Packed in standard 1 1/4 in. cartridges, 50 lbs. to a case. Can also be furnished in 25-lb. cases for which there is an extra charge.

20% Strength.....	} MARKET
30% Strength.....	
40% Strength.....	
60% Strength.....	

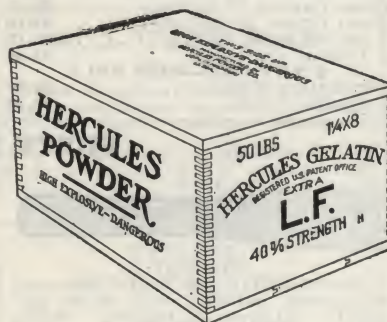


Fig. No. 2752

### HERCULES L. F. GELATIN DYNAMITE (LOW FREEZING)

Hercules Gelatin is good for wet work, or for use where ventilation is poor. Its plasticity enables it to be loaded easily and effectively in holes having an upward slant, and the density and plasticity make it extremely well adapted for tight blasting in hard rock, such as tunnel driving, etc.

It is packed in standard 1 1/4 in. cartridges, 50 lbs. to the case. Can also be furnished in 25-lb. cases, for which there is an extra charge.

35% Strength.....	} MARKET
40% Strength.....	
50% Strength.....	
60% Strength.....	
75% Strength.....	

### HERCULES BLASTING MACHINES

An apparatus for generating electric current used in firing electric blasting caps, squibs, and igniters; made in six sizes with capacity for detonating from three to one hundred and fifty caps in series.



Fig. No. 2753

Size	Capacity
Pocket	3 Electric Blasting Caps
No. 2.....	10 Electric Blasting Caps
No. 3.....	30 Electric Blasting Caps
No. 4.....	50 Electric Blasting Caps
No. 5.....	100 Electric Blasting Caps
No. 6.....	150 Electric Blasting Caps

PRICE.....ON APPLICATION

### SAFETY FUSE



Fig. No. 2756

We are prepared to furnish all standard brands of fuse. These are adapted to all kinds and conditions of work. All brands have definite burning speeds, and are packed in coils of 100 ft. Cases contain from 5 to 60 coils. When ordering be sure to give full particulars regarding kind of work and conditions, dry or wet, etc.

PRICE ON APPLICATION

### BLASTING CAPS

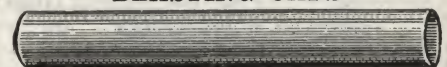


Fig. No. 2755

Blasting Caps are used to detonate charges of high explosives, in connection with the fuse listed above. As the efficiency of any high explosive depends on the initial shot, we do not recommend caps smaller than Hercules No. 6.

Standard sizes Nos. 6 and 8. Packed 100 in a box, 5 to 50 boxes in a case.

### ELECTRIC BLASTING CAPS

Fig. No. 2754

These are used to detonate charges of high explosives by means of electricity, in connection with the blasting machines listed above. They are made in two strengths, No. 6 and No. 8. These are connected with insulated copper wires from 4 to 30 ft., or with iron wires from 4 to 8 ft. Packed 25 or 50 to the carton, 10 cartons to the case.

PRICES.....ON APPLICATION



STEEL WOOL



Fig. 2537

The standard. Long strands. Properly graded. Uniform. For removing grit and dust from dairy equipment, smoothing wood surfaces, etc.

★ NET POUND, In One Pound Packages.

Grade No.	000	00	0	1	2	3
1 to 24 lbs.	\$0.40	\$0.28	\$0.23	\$0.23	\$0.18	\$0.18
25 to 99 lbs.	\$0.36	\$0.26	\$0.20	\$0.20	\$0.16	\$0.16
100 lb. Lots	\$0.35	\$0.25	\$0.19	\$0.19	\$0.15	\$0.15

FLAXOAP

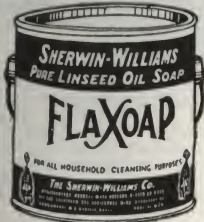


Fig. 5089

A 100% pure linseed oil in paste form. It can be used on the finest of fabrics, floors, woodwork, walls, furniture, windows, mirrors, rugs, etc., without fear of injury as it contains NO animal fat, and NO free caustic alkali. It lathers freely in hot, cold, hard or soft water.

Pounds	In	Carton	LIST
1	Can	24	Can, \$0.38
2	Can	12	Can, \$0.64
5	Can	6	Can, \$1.50
25	Drum	1	Pound, \$0.27
50	Drum	1	Pound, \$0.26
300	Drum	1	Pound, \$0.20
Broken Carton Lot ... 45% OFF			
Full Cartons ..... 50% OFF			

SPONGES



Sizes shown are approximate when sponge is wet.

Fig. 5090

Size No.	Size Inch	Packed	LIST EACH
GRASS SPONGES			
A110	5-1/2	24	\$0.10
A111	6-1/2	24	\$0.15
A112	7-1/2	12	\$0.25
FLORIDA YELLOW SPONGES			
A114	5-1/2	12	\$0.25
A115	6-1/2	12	\$0.50
A116	7-1/2	6	\$0.75
A117	8-1/2	6	\$1.00
CUBA SHEEPSWOL CUT SPONGES			
A118	5	12	\$0.50
A119	6	12	\$0.75
A120	6-1/2	6	\$1.00
A121	7-1/2	6	\$1.50
NO. 1 ROCK ISLAND SHEEPSWOL FORM SPONGES			
A122	5-1/2	12	\$1.00
A123	6-1/2	6	\$1.50
A124	7	6	\$2.00
A125	7-1/2	6	\$2.50

DISCOUNTS

Broken Packages	20% OFF
Full Packages	33-1/3% OFF

DIC-A-DOO PAINT BRUSH BATH

Fig. 5169

A paint brush cleaner and restorer. One package will clean one large brush and several smaller brushes. It keeps brushes soft and clean like new.

★ NET PACKAGE.	\$0.05
★ NET DOZEN PACKAGES.	\$0.40

CHAMOIS SKINS

Sizes shown are approximate.



Size No.	Size Inches	LIST DOZEN
Fig. 5091		
DRU-TAN CHAMOIS		
D50	13x16	\$6.00
D75	14x18	\$9.00
D100	16x21	\$12.00
D125	18x24	\$15.00
D150	20x26	\$18.00
Fig. 5092		
SEWED CHAMOIS		
1236	13x16	\$3.60
1246	16x17	\$4.50
1846	17x23	\$7.20
3046	24x27	\$10.80

Fig. 5093		
HEAVY WEIGHT CHAMOIS		
100	14x23	\$18.00
101	16x26	\$21.00
102	18x30	\$27.00
103	20x32	\$33.00
104	22x34	\$36.00

Fig. 5094  
HEAVY WEIGHT DOUBLE DUTY CHAMOIS  
Genuine oil tan. First quality. Double dressed. Double duty bruts. Especially selected for weight and quality and are best for heavy duty. Finished on the flesh side and the grain side has been especially prepared and dressed. Large sizes can be cut.

Size No.	Size Inches	LIST DOZEN
F0	19x11	\$9.72
F2	23x13	\$13.68
F4	26x15	\$19.51
F5	28x16	\$23.65
F6	30x18	\$27.50
F7	31x19	\$30.00
F9	33x21	\$35.25
F10	35x22	\$38.00

1 to 11	20% OFF
12 or More	33-1/3% OFF

PAINTERS & DECORATORS TRESTLE AND PLANK

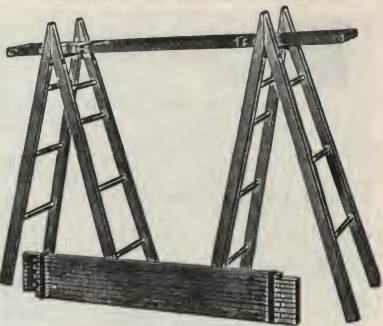


Fig. 5095

TRESTLE ONLY

Made of Norway pine or clear fir, sides and hickory rungs connected with 3/8 inch wrought iron double eye bolts. The base ends are beveled. Weight for each foot, 5 pounds.

Feet	★ NET EACH	Feet	★ NET EACH
6	\$6.75	14	\$15.75
7	\$7.75	16	\$18.00
8	\$9.00	18	\$21.60
10	\$11.25	20	\$24.00
12	\$13.50		

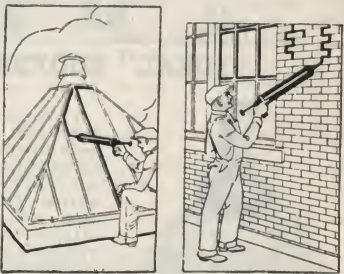
Fig. 5096

EXTENSION PLANK ONLY

Made of clear Norway pine. Two bolts at each end.

Length Feet	Stock Inches	Extends Feet	★ NET EACH
6	1-1/16x1-3/4	10-1/2	\$5.30
7	1-1/16x1-3/4	12	\$6.30
8	1-1/16x2	13-1/2	\$7.50
10	1-1/16x2-1/4	17-1/2	\$9.00

KONTAK CALKING AND GLAZING COMPOUND



A flexible, lasting preparation for calking joints in skylights, window frames, etc., and for pointing bricks, mortar joints, etc. Seals joints and cracks against dust, dampness, and draughts. Kontak is a vast improvement over putty and similar preparations as it does not crumble or crack for years. Holds the heat INSIDE and the cold OUTSIDE.

STANDARD QUALITY

Fig. 5097 — ★ NET EACH			
Pails	Stone	Red	Green
1 Gallon	\$1.80	\$2.10	\$2.10
5 Gallon	\$8.85	\$10.25	\$10.25

SUPERIOR QUALITY

Fig. 5241 — ★ NET EACH			
Package	Stone	Red	Green
IN TUBE — With Nozzle and Key. Can be applied without a gun.			
1/2 Pint	\$0.50	....	....
1/6 Gallon	\$1.00	....	....

IN CARTRIDGE — Slips quickly into barrel of calking gun. Saves time in refilling gun. Specify that gun is for cartridge.

1 Pint	\$0.50	....	....
IN PAILS			
1 Gallon	\$2.85	\$3.15	\$3.15
5 Gallon	\$13.00	\$14.50	\$14.50

CALKING GUN

Fig. 5099. 1 Pint. 2 by 10 inches. 2-1/2 turn cap. Swivel handle. Specify: For Bulk; or For Cartridge.  
★ NET EACH, \$4.50



# WOOSTER FOSS-SET PAINT BRUSHES

GUARANTEED  
USE IN ANYTHING



## VARNISH BRUSHES

Chisel bristles, double thick set in rubber. Nickeled ferrules.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>5074 DUZ. Colored Handles</b>			
1	1-7/8	\$0.10	\$1.02
1-1/2	1-7/8	\$0.15	\$1.29
2	1-7/8	\$0.20	\$1.68

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>5075 TOPPY. Colored Handles</b>			
1	2	\$0.15	\$1.08
1-1/2	2	\$0.20	\$1.57
2	2-1/4	\$0.25	\$2.56

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>5076 FOLLY. Natural Handles</b>			
1	2-1/8	\$0.20	\$1.57
1-1/2	2-1/8	\$0.25	\$2.07
2	2-3/8	\$0.40	\$3.80
2-1/2	2-5/8	\$0.55	\$5.25

## 4122 VARNISH BRUSH

FORGE. Double thick varnish brush. Best quality black Chinese bristles. Nickel plated ferrule. Cedar stained handle. For high grade varnishing or sash painting.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
1	2	\$0.25	\$2.15
1 1/2	2 1/4	\$0.40	\$4.00
2	2 1/2	\$0.55	\$5.07
2 1/2	2 3/4	\$0.85	\$8.45



## 4124 SASH BRUSH

FOX. Flat sash, cutter or trim brush. Extra heavy. Best quality black Chinese bristles. Nickel plated ferrule. Long smooth unvarnished handles.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
1 1/2	2 1/4	\$0.50	\$4.85
2	2 1/2	\$0.65	\$6.52



## 4123 VARNISH BRUSH

EXTRA SHASTA. Paint, varnish or enamel brush. Pure black Chinese bristles, solid center, long stock, specially prepared. Nickel plated solid steel ferrule. Natural varnished handle with red stripe.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
1 1/2	2 1/2	\$0.55	\$5.43
2 1/2	2 3/4	\$0.85	\$8.11
2 3/4	3 3/4	\$1.25	\$12.24
3 3/4	3 3/4	\$1.85	\$18.14



## WALL BRUSHES

Flat paint or wall brushes. Nickel plated ferrules. Natural polished handles. All pure black Chinese bristles.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>5077 FA-OT</b>			
3	2-3/8	\$0.60	\$5.87
3-1/2	2-5/8	\$0.75	\$7.16
4	2-7/8	\$1.00	\$9.72

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>5078 ONLIWON</b>			
3	2-3/4	\$0.55	\$5.20
3-1/2	2-7/8	\$0.80	\$7.82
4	3-1/4	\$1.05	\$10.43

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>4125 FAD</b>			
3	3-1/8	\$1.20	\$11.60
3-1/2	3-3/8	\$1.65	\$16.50
4	3-5/8	\$2.30	\$22.67

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
<b>4126 JOE</b>			
3-1/2	3-7/8	\$2.95	\$29.50
4	4-1/8	\$4.10	\$40.92



## 4127 WALL BRUSH

FRIENDLY PAINTER. An excellent flat paint or wall brush. Nickel plated ferrule. Pure black Chinese bristles. Natural wood polished beaver tail handle. Extra long stock.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
3 1/2	4 1/4	\$3.30	\$32.75
4	4 1/2	\$4.25	\$42.54



## 4128 WALL BRUSH

M. P. FALCON STUCCO. Solid center (filled with bristles). Wall paint brush. Elastic. Holds more paint and spreads it evenly. Will not "swallow-tail." Will not come apart. Leather bound. Extra long selected black Chinese bristles. Green handles.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
4 1/2	5 1/8	\$7.20	\$71.78
	5 1/8	\$8.10	\$80.95



## 4129 KALSOMINE BRUSH

FRANCE. Kalsomine brush. High grade. Galvanized iron ferrule. Plain white wood unvarnished handle. All pure black Chinese bristles.

Width Inches	Bristle Length	★ NET EACH	★ NET DOZEN
7	4 3/4	\$9.15	\$91.50

## "IDEAL" ROOFERS' MOP



Fig. No. 3278

This mop can be made on the job with no other tools than a hammer or hatchet. Mops can be made any length best suited to your work, then pound staple through holes in mop cup. No loss from broken sticks. No cap to burn out as the cap can be used over and over again.

Handles extra, see prices below.

Mop Pounds	★ NET EACH Mop and Head	Mop Only
1-1/2	\$1.00	\$0.60
2	\$1.25	\$0.80
2-1/2	\$1.40	\$1.00

Mop head including staple.....

★ NET DOZEN, \$5.00

Staples .....★ NET DOZEN, \$0.25

Mop handles, 6 ft. ....★ NET DOZEN, \$4.50

Mop handles, 5 1/2 ft. ....★ NET DOZEN, \$4.00

Mop handles, 5 ft. ....★ NET DOZEN, \$2.50

Mop yarn .....★ NET POUND, \$0.40

Note: Yarn prices subject to change without notice.



Fig. No. 3090

Mop Head

## DIPPERS

Grade 1. Riveted Seams. Double annealed steel. Malleable iron socket handle, into which a wood handle (extra) will snugly fit. 2 gallon size.

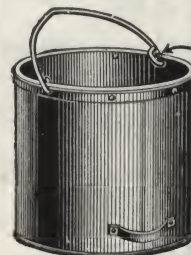
Fig. 4618 ....★ NET EACH, \$2.75

Grade 2. Machine seamed. 2 gallon size.

Fig. 3082 ....★ NET EACH, \$2.00



## MOPPING AND HOISTING BUCKETS



For Mopping



For Hoisting

Grade 1. The best, made by hand. Used by the majority of roofers. Double annealed steel body with Norway iron trimmings. Closely riveted.

Fig. 4614. Hoisting, 6 gallon ...★ NET EACH, \$4.40

Fig. 4615. Mopping, 8 gallon ...★ NET EACH, \$4.95

Grade 2. Well made. They are machine seamed throughout.

Fig. 4616. Hoisting, 6 gallon ....★ NET EACH, \$3.00

Fig. 4617. Mopping, 8 gallon ....★ NET EACH, \$3.30

## GALVANIZED STEEL POURING BUCKET

Fig. 4613

Made of galvanized steel. A non-leakable tar spreading bucket for all specifications of material to be poured on roofs. 4 gallon capacity.

★ NET EACH, \$4.00





**CORRUGATED ELEVATOR SIDING**

Fig. No. 1869

Sheets are laid in such a manner that the elevator sides have a chance to settle without disturbing the fastenings of sheets. The sheets are laid with a 2 inch lap, and the nails are two inches above the upper edge of lower sheets, thus allowing the sheets to slip 2 inches in every 32 inches as the sides of the elevator settle, and will not buckle or draw the nails.

Stock sizes, 2 and 2½ inch corrugated, 26 inches wide by 32 inches long—5½ sq. ft. per sheet.

Stock size, 1½ inch corrugated, 25 inches wide by 32 inches long—5½ sq. ft. per sheet.

	2 and 2½ Inch Corrugated			
Gauge.....	29	28	27	26
Painted. Wt., lbs. per square.....	68	68	83	110
Galvanized. Wt., lbs. per square.....	78	84	91	98

	1½ Inch Corrugated			
Gauge.....	29	28	27	26
Painted. Wt., lbs. per square.....	72	72	86	114
Galvanized. Wt., lbs. per square.....	78	86	94	101

**"IMPERIAL" PLAIN PRESSED BRICK SIDING**

Fig. No. 1872

Sheets 28x60 inches and contain 11½ square feet.

Gauge.....	29	28	27	26
Painted. Wt., lbs. per square.....	64	64	77	91
Galvanized. Wt., lbs. per square.....	72	78	85	97

**ROCK FACE STONE SIDING**

Fig. No. 1873

Size of single stone 7x12 inches. Sheets 28x60 inches and contain 11½ square feet.

Gauge.....	29	28	27	26
Painted. Wt., lbs. per square.....	64	64	77	91
Galvanized. Wt., lbs. per square.....	72	78	85	97

Size of single stone, 9½x20 inches. Sheets 28x60 inches and contain 11½ square feet.

Gauge.....	29	28	27	26
Painted. Wt., lbs. per square.....	65	65	78	92
Galvanized. Wt., lbs. per square.....	74	79	86	92

Size of single stone, 6x6 inches. Sheets 24x60 inches and contain 10 square feet.

Gauge.....	29	28	27	26
Painted. Wt., lbs. per square.....	65	65	78	92
Galvanized. Wt., lbs. per square.....	74	79	86	92

**TABLE OF MATERIAL REQUIRED FOR 100 SQUARE FEET OF SURFACE****2 AND 2½ INCH CORRUGATION**

End lap, In.....	1	2	3	4	5	6
Side lap, 1 corrugation. Sq. ft.	110	111	112	113	114	115
Side lap, 1½ corrugation. Sq. ft.	116	117	118	119	120	121
Side lap, 2 corrugation...Sq. ft.	123	124	125	126	127	128

**1½ INCH CORRUGATION**

End lap, In.....	1	2	3	4	5	6
Side lap, 1 corrugation. Sq. ft.	107½	108½	109½	110½	112½	113½
Side lap, 1½ corrugation. Sq. ft.	110½	111½	112½	113½	115½	116½
Side lap, 2 corrugation. Sq. ft.	113½	114½	115½	117	118½	119½

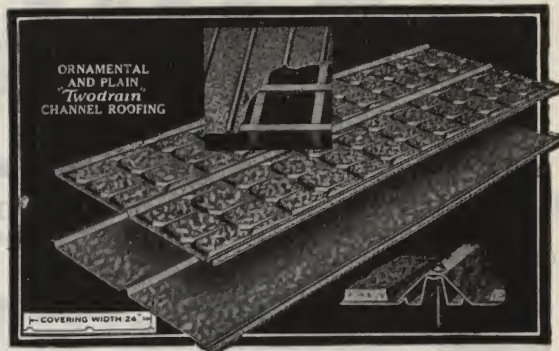
**PRICES QUOTED ON REQUEST****TWO-DRAIN CHANNEL ROOFING**

Fig. 4619

Made in two styles, ornamental or plain. Made of 29, 28, or 26 gauge galvanized steel. Specify style and gauge when requesting prices.

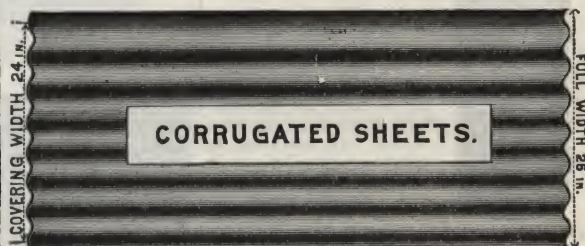
**2 and 2½ INCH CORRUGATED STEEL**

Fig. No. 1874

2 and 2½ inch Corrugated Steel is 26 inches wide, and when lapped one corrugation covers 24 inches. Full length and width of sheets charged for.

Gauge.....	29	28	27	26	24	22	20	18	16
Painted. Wt., lbs. per square.....	68	68	83	110	136	163	217	271	
Galvanized. Wt., lbs. per square..	78	83	91	98	124	151	178	232	286

Stock sizes, ft.....	5	6	7	8	9	10	11	12
Square feet per sheet.....	10⅞	13	15½	17½	19½	21½	23½	26

For 11 and 12 foot sheets in the 2½ inch Corrugated, 10 cents per square extra.

**1½ INCH CORRUGATED STEEL**

Fig. No. 1875

1½ inch Corrugated Steel is 25 inches wide, and when lapped one corrugation covers 24 inches.

Gauge.....	29	28	27	26	24	22
Painted. Wt., lbs. per square.....	72	72	86	114	142	
Galvanized. Wt., lbs. per square.....	80	85	94	101	129	157

Stock sizes, ft.....	5	6	7	8	9	10	11	12
Square feet per sheet.....	10⅞	12¾	14¾	17	19½	21¾	23¾	25½

For 11 and 12 foot sheets, 10 cents per square extra.



# ROOFING

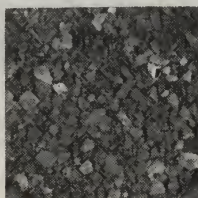
## CERTAIN-TEED PRODUCTS

# AND SUPPLIES

### SLATE SURFACE ROOFING

#### "Defiance" Brand

#### CLASS C UNDERWRITERS LABEL



A slate surface roofing, with a base of high grade felt, thoroughly saturated. The slate is natural color and is embedded into the surface when the coating is warm, thus fixing it permanently into the body of the roof.

The slate coating adds greatly to the fire resistance as well as making the roofing very attractive in appearance. Colors furnished either red or green. Width of roll, 36 inches, each roll containing 108 square feet. Approximate weight per roll, 90 pounds. Large head nails and cement included.

★ NET ROLL, \$2.34

### "WINDSOR" SMOOTH ROOFING

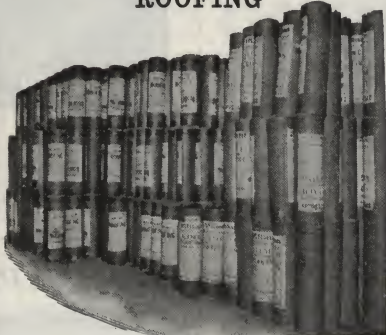
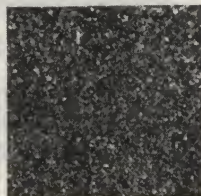


Fig. No. 2687

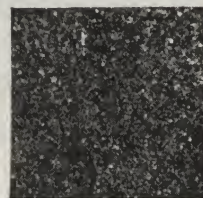


This roofing is sanded on one side and is produced for a trade which does not want to invest in high grade roofing, yet requires something at a medium price for ordinary work.

Width of roll, 36 inches. Each roll contains 108 square feet. Large head nails and cement included.

	Wt. Per Sq.	★ NET ROLL
Light .....	35 pounds	\$1.10
Medium .....	45 pounds	\$1.39
Heavy .....	55 pounds	\$1.68

### DEFIANCE SMOOTH EXTRA QUALITY SURFACE ROOFING



A high quality asphalt roll roofing that is made in accordance with the rigid government and railroad specifications. Smooth talc surface. Black finish. Used for factory buildings, institutions, etc., where a better than average grade roofing is required. The 45 and 55 pound weights carry

the Underwriter's Class C Label. 108 square feet to the roll. 36 inches wide.

Standard	Wt. Per Sq.	★ NET ROLL
Light .....	35 pounds	\$1.38
Medium .....	45 pounds	\$1.65
Heavy .....	55 pounds	\$1.94

### "DEFIANCE" SMOOTH SURFACE ROOFING

#### CLASS C UNDERWRITERS LABEL

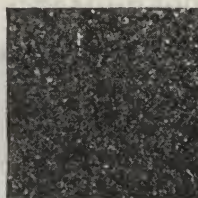


Fig. 2689

An article of merit, put on the market to fill the demand for a high grade roof.

Manufactured only from a high grade of wool felt, water-proofed with compounds prepared from the best grade of natural asphalt.

Put up in squares or rolls containing 108 square feet. Width of roll, 36 inches. Each roll has

in the center a container of liquid lap cement and large head nails sufficient for laying each square.

	Wt. Per Sq.	★ NET ROLL
Super .....		
Medium .....	60 lbs.	\$2.43
Heavy .....	70 lbs.	\$2.78
Extra Heavy .....	77 lbs.	\$2.91

### TARRED FELT

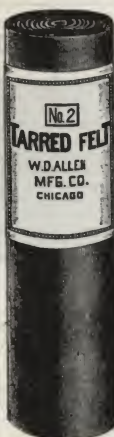


Fig. 1859

High quality finish. Unrolls easily. Saturated with pure, refined coal tar. Adapted for gravel roofing, also lining and sheathing purposes.

No.	No.	No.	No.
12	14	15	20
Weight Pounds, To 100 Square Feet			
12	14	15	20
Square Feet To Roll			
432	432	432	216
Width, Inches			
32	32	32	32
Length, Feet			
162	162	162	81
Approximate Pounds To Roll			
52	60	65	43
★ NET ROLL			
	\$1.85	\$2.10	\$2.26 \$1.52

### ROOFING NAILS

Nails ..... ★ NET POUND, \$0.12

### ROOFING CAPS

Caps ..... ★ NET POUND, \$0.12

### ROOFING PITCH & REFINED COAL TAR



Fig. No. 3411

#### ROOFING PITCH

Fig. No. 3411. Distilled from pure coal tar. Proper consistency. Superior for gravel roofing purposes. In barrels weighing from 300 to 600 pounds.

★ NET 100 POUNDS, \$1.50

#### REFINED COAL TAR

Fig. No. 3412. Far superior to crude coal tar. Water and other impurities are distilled from it. Barrels of 50 gallons.

★ NET BARREL, \$11.90



# SHINGLE ROOFING

## CERTAIN-TEED PRODUCTS

### STRIP SHINGLES

Four shingles per strip. Cut-outs 4 by  $\frac{1}{2}$  inches. Tabs 8  $\frac{1}{4}$  inches between cut-outs. 100 strips to a square. 5 nails to each strip. Colors, Red, Green, Blue-Black. Specify color.



Fig. No. 2839

10-inch strip. Average weight, 210 pounds per square. 36 inches long.

★ NET SQUARE, \$6.49



Fig. No. 3583

12  $\frac{1}{2}$ -inch strip. Average weight, 266 pounds per square. 36 inches long.

★ NET SQUARE, \$8.06

### HEXAGON STRIP SHINGLES



Two Shingles Per Strip. Strips are 36 inches long and 12  $\frac{3}{4}$  inches at widest point. Tabs are 12 inches wide at top and 6 inches at bottom. 86 strips per square. 4 nails per strip. Has end-locking device. Colors: Red Tone, Brown Tone, Green and Blue-Black. Specify color.

Fig. No. 3584

Special. 2 bundles per square. Average weight, 86 pounds per square. Class C Underwriters' label.

★ NET SQUARE, \$5.63

Fig. No. 3585

Giant. Affords extra protection and durability. Average weight, 235 pounds per square. 3 bundles per square. Underwriters' Class "C" label.

★ NET SQUARE, \$7.30

### RUTLAND No-Tar-In ROOF COATING

Fig. 4462

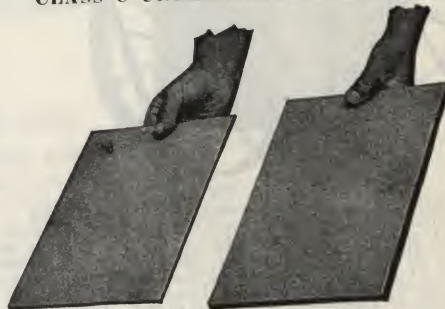
Made of asphalt and asbestos. For repairing and renewing old roofs of metal, paper or composition. Also used for waterproofing outside of foundation walls. Easy to use. A gallon covers about 50 square feet.

Black ... ★ NET GAL., \$0.52  
Red .... ★ NET GAL., \$1.10



### INDIVIDUAL SHINGLES

#### CLASS C UNDERWRITERS LABEL



Standard

Super Giant

Fig. No. 2836

Standard. 10 by 12  $\frac{3}{4}$  inches. Laid 4 inches to the weather. 344 shingles to the square. 3 bundles to the square. 2 nails to each shingle. Average weight, 253 pounds per square. Colors: Red, Brick Red, Green, Lawn Green, and Blue-Black. Specify color.

★ NET SQUARE, \$6.92

Fig. No. 2838

Super Giant. Extra thick and heavy. 12 inches wide by 16 inches long. Laid 5 inches to the weather. 228 shingles per square, 4 bundles to the square. Average weight, 325 pounds per square. Colors: Red, Brick Red, Blue-Black, Green, and Lawn Green.

★ NET SQUARE, \$9.52

### HARD VULCANIZED FIBRE

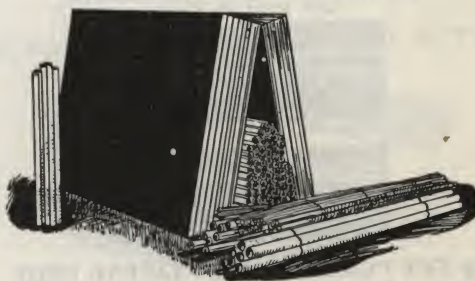


Fig. 4120

#### TOUGH.

LIGHT—Lighter than aluminum.

GREAT TENSILE STRENGTH—Almost as strong as iron.

RESILIENT—Takes up vibration and shocks without crystallizing.

FACILE—Yields readily to manufacturing processes.

VERY HARD—Is pliable but not brittle, it will not crack, split, splinter, break, dent or fray.

IMPERVIOUS TO OILS—Also to greases and gases. Not affected by ordinary solvents such as ether, alcohol, ammonia, naphtha or turpentine.

EXCELLENT INSULATOR—For electricity, heat and cold.

PRACTICALLY FIREPROOF—Withstands heat up to 500° F.

Specify colors: RED, BLACK or GRAY. Stocks can be cut to convenient sizes for your use.

SHEETS—.005 to 1  $\frac{1}{2}$  inches thick.

RODS— $\frac{1}{8}$  to 2 inches in diameter.

TUBES— $\frac{1}{8}$  to 3 inches inside diameter.

PRICES.....ON APPLICATION



## TAR MELTING FURNACES



Fig. 3267

(Size 3, Capacity 50 Gallons Illustrated)

These Tar Melters are especially adapted for roof and pavement work. Steel wheels. Construction of Size 3 is lighter than sizes 1 and 2. Sizes 1 and 2 furnaces are made of strongly braced  $\frac{1}{4}$  inch steel plate, with a hinged cover of steel plate. Cast iron doors, grates and linings. The cast iron kettle can be replaced at any time. Size 2 has a furnace and wheels exactly like Size 1, but a raised curb kettle is used to give it a larger capacity.

Size No.	Capacity Gallons	Diameter Wheels	Weight Pounds	★ NET EACH
3	50	30	590	\$90.00
1	65	48	1,000	\$150.00
2	90	48	1,000	\$180.00

## OIL BURNING MELTING KETTLES



Fig. 3954

Style B. Fig. Stationary type, on legs.

Style C. Fig. Portable, on steel tired wheels.

Style D. Fig. Trailer, on rubber tired wheels.

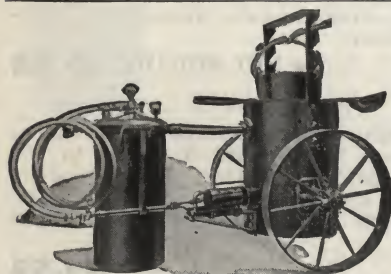
For roofers, waterproofers, flooring and insulating contractors. For melting tar, pitch, asphalt and other bituminous products. Burns kerosene. For inside or outside use. No sparks, no soot and no ashes. Torch outfit may be detached and used for other heating and thawing purposes.

Size Number	2	3	4	5	6
Capacity, gallons	25	50	75	110	165
Diameter Wheels, inches	24	32	32	32	32
Oil Tank Capacity, gallons	10	20	20	20	20
Hour Oil Consumption, gals.	1 1/2	2	2 1/2	3 1/2	4 1/2
Style B, shipping wt., lbs.	235	440	500	600	755
Style C, shipping wt., lbs.	660	850	890	980	1135
Style D, shipping wt., lbs.	745	925	977	1065	1220
Style B, ★ Net Complete	\$95.	125.	140.	160.	180.
Style C, ★ Net Complete	\$150.	170.	190.	220.	240.
Style D, ★ Net Complete	\$200.	220.	240.	270.	290.

## LEAD MELTING FURNACES

Fig. 3945

Melts 200 to 850 pounds of lead in 8 to 35 minutes respectively. Portable type on wheels; or semi-portable type on legs. Ideal for pipe line laying or repair work. Burner may be detached from furnace and used for many heating and thawing purposes. Improved type burner gives quick, clean, and economical heat. Approximate oil consumption is 1 to 2 gallons an hour.



Cpy. Of Pot	Cpy. Oil	Oil Hose	Shpg. Weight	—On Wheels—	—On Legs—
Pounds	Gallons	Length Feet	Pounds	★ NET EACH	★ NET EACH
200	10	10	400	18W \$134.00	18L \$114.00
450	10	10	500	24W \$150.00	24L \$130.00
850	15	12	600	30W \$166.00	30L \$146.00

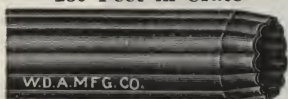
GALVANIZED CONDUCTOR PIPE  
Round Corrugated and Plain RoundAll sizes made in 10 Foot Lengths  
250 Feet in Crate

Fig. No. 1887, Corrugated

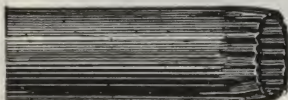


Fig. No. 1888, Plain

## ★ NET PRICES PER 100 LINEAL FEET

Size, Inches	2	3	4	5	6
No. 28 Gauge	\$5.50	\$6.40	\$8.50	\$10.50	\$12.60
No. 26 Gauge	7.60	8.40	11.25	13.60	16.00

GALVANIZED ELBOWS AND SHOES  
Corrugated or Plain Round

No. 1 No. 2 No. 4 No. 3 or Shoe No. 3 Elbow

## LIST DOZEN—Fig. 1889

Size, Inches	2	3	4	5	6
Elbows	\$3.60	\$4.32	\$7.20	\$15.00	\$18.00
Shoes	4.80	5.76	9.00	18.00	21.60

Discount { No. 28 Gauge.....50% OFF  
No. 26 Gauge.....25% OFFGALVANIZED  
ANGLE RIDGE CAP

8 and 10-Foot Lengths

With Nailing Flange



Fig. No. 1883

## ★ NET PRICES PER 100 FEET

Girth, Inches	7	8	10	12	14
Size of Apron	3 1/2	4	5	6	7
No. 28 Gauge	\$4.60	\$5.20	\$6.20	\$7.50	\$9.15
No. 26 Gauge	6.20	6.80	7.75	9.00	10.50

GALVANIZED  
PLAIN RIDGE ROLL

8 and 10-Foot Lengths



Fig. No. 1884

## ★ NET PRICES PER 100 FEET

Girth, Inches	7	8	10	12	14
Roll, Inches	1 1/4	1 1/2	2	2 1/2	3
No. 28 Gauge	\$4.60	\$5.20	\$6.20	\$7.50	\$9.15
No. 26 Gauge	6.20	6.80	7.75	9.00	10.50

GALVANIZED  
RAIN WATER CUT-OFFS

Fig. No. 1890

## LIST PRICES PER DOZEN

Size, In.	List per Doz.
2	\$7.50
3	8.00
4	11.00
5	20.00
6	24.00
Discount	20% OFF



**GALVANIZED EAVES TROUGH****Lap and Slip Joint—Single and Double Bead**

All sizes, made in 10 foot lengths. Shipped in crates of 250 feet.

Lap  
Fig. No. 1878Slip  
Fig. No. 1877**Single Bead, Lap Joint****★ NET PRICES PER 100 LINEAL FEET**

Size, In.	No. 28 Gauge Net per 100 ft.	26 Gauge Net per 100 ft.
3½	\$4.55	\$6.20
4	5.20	6.80
4½	5.90	7.50
5	6.25	7.70
6	7.50	9.20

**Single Bead, Slip Joint****★ NET PRICES PER 100 LINEAL FEET**

Size, In.	No. 28 Gauge Net per 100 ft.	26 Gauge Net per 100 ft.
3½	\$4.90	\$6.00
4	5.60	6.50
4½	6.20	7.60
5	7.50	8.00
6	8.20	9.80

Double Bead Trough, Price on Application.

**GALVANIZED ROOF GUTTERS—Made in 10-Foot Lengths**

Fig. No. 1885—Style A

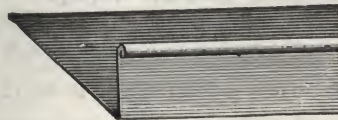


Fig. No. 1886—Style B

Intermediate Girths take list of next higher Girth.  
When ordering Mitres specify whether inside or outside are wanted.**LIST PRICES PER FOOT**

Style	A	A	A	B	B	B
Girth, Inches...	12	14	20	12	15	20
Bead, Inches...	5/8	5/8	5/8	5/8	5/8	5/8
Height, Inches...	3 1/4	4 5/8	5 1/2	2 1/2	3 1/4	4 3/4
No. 28 Gauge..	\$0.30	\$0.35	\$0.50	\$0.30	\$0.37	\$0.50
No. 26 Gauge..	.36	.41	.62	.36	.43	.62
Discount .....	70% OFF					

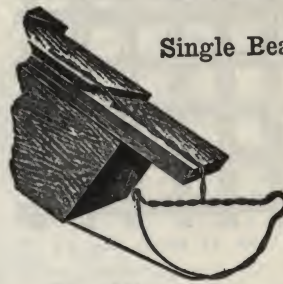
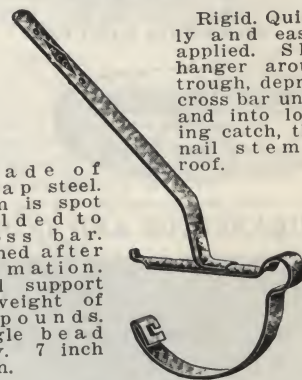
**GALVANIZED WIRE EAVES TROUGH HANGERS****Single Bead**

Fig. 1880

Size, Inches	★ Net Dozen
3 1/2	\$0.23
4	.23
4 1/2	.25
5	.25
6	.30

For Double Bead Hangers add 3c per dozen to above prices.

**SELFLOCK EAVES TROUGH HANGER**

Rigid. Quickly and easily applied. Slip hanger around trough, depress cross bar under and into locking catch, then nail stem to roof.

Made of strap steel. Stem is spot welded to cross bar. Tinned after formation. Will support a weight of 50 pounds. Single bead only. 7 inch stem.

Fig. No. 3773

Size, inches	3 1/2	4	5
★ Net Dozen	\$0.48	\$0.48	\$0.60

**GALVANIZED GUTTER END-PIECES****Outlets and Caps**End Outlet  
Fig. No. 1881Cap  
Fig. No. 1882**LIST PRICES PER DOZEN**

Size, Inches	3 1/2	4	4 1/2	5	6	7	8
No. 28 Gauge							
Gutter Ends, Single Bead..	\$2.50	\$2.70	\$3.00	\$3.00	\$3.60	\$4.00	\$4.20
Gutter Ends, Double Bead..	3.10	3.30	3.60	3.60	4.30	4.75	5.00
Gutter Drops only.....	1.10	1.20	1.30	1.30	1.60	1.90	2.10
Slip End Caps only.....	1.30	1.50	1.60	1.60	1.90	2.30	2.80
No. 26 Gauge							
Gutter Ends, Single Bead..	3.10	3.40	3.75	3.75	4.50	5.00	5.25
Gutter Ends, Double Bead..	3.90	4.15	4.50	4.50	5.40	5.95	6.25
Gutter Drops only.....	1.40	1.50	1.65	1.65	2.00	2.30	2.50
Slip End Caps only.....	1.65	1.90	2.00	2.00	2.40	2.90	3.50

Discount, 28 Gauge.....20% OFF

Discount, 26 Gauge.....20% OFF

Be sure and state if right or left hand is wanted.  
Can furnish the outlets without end cap attached—and end can then be used for either right or left hand.**GALVANIZED EAVES TROUGH MITRES**

Fig. No. 1879

**Single Bead—Lap Joint****LIST PRICES PER DOZEN**

Size, Inches	3 1/2	4	4 1/2	5	6	7	8
No. 28 Gauge.....	\$3.25	\$3.50	\$4.00	\$4.00	\$5.00	\$6.50	\$8.00
No. 26 Gauge.....	4.00	4.25	4.75	4.75	6.00	8.00	9.50

**Single Bead—Slip Joint****LIST PRICES PER DOZEN**

Size, Inches	3 1/2	4	4 1/2	5	6	7	8
No. 28 Gauge.....	\$4.25	\$4.50	\$5.00	\$5.00	\$6.00	\$7.50	\$9.00
No. 26 Gauge.....	5.00	5.25	5.75	5.75	7.00	9.00	10.50

Discount.....30% OFF

When ordering Slip Joint Mitres, state whether right or left hand is wanted, and whether for "Inside" or "Outside" Corner, otherwise half right and half left, and half "inside" and half "outside" Corner Mitres will be supplied.



### STEEL SPARK WIRE CLOTH—Crimped

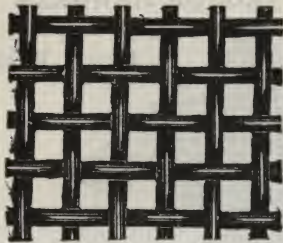


Fig. 1795, (4 Mesh, No. 14 Wire)

State the length, mesh, width and size of wire wanted. The mesh when given in full numbers as 2, 3 or 4, means, respectively 2, 3 or 4 openings to an inch. To ascertain the mesh of wire cloth, count the number of openings in one inch, taking the center of a given wire as a starting point. Full rolls 100 feet long. Cut pieces cannot be exchanged.

Mesh	No. Wire	Widths, In.
2	10	24, 30, 36
3	12	24, 30, 36
4	14	24, 30, 36
6	16	24, 30, 36
8	18	24, 30, 36

PRICES ON REQUEST

### BRASS WIRE CLOTH Old English Gauge Standard

No Length Less Than 100 Feet Shall  
Be Understood to Be a Roll

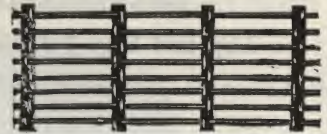
Fig. No. 3582

#### LIST PRICES SQUARE FOOT

Mesh	No. Wire	Stock Widths, In.	List per Sq. Ft.
2	16	36	\$0.50
3	17	36	.50
4	18	36	.50
5	19	36	.50
6	20	36	.50
8	22	36	.50
10	23	36	.50
12	24	36	.50
14	25	36	.50
16	26	36	.50
18	27	36	.50
20	28	36	.50
24	30	36	.50
30	31	36	.55
40	33	36	.60
50	35	36	.65
60	36	36	.70
70	37	36	.80
80	38	36	1.00
90	39	36	1.25
100	40	36	1.45

PRICE ..... LIST NET

### PEARL WIRE CLOTH



Steel wire, metallic finish, rust proof. In rolls 100 feet long. Can be carried in stock an indefinite time without becoming rusty. Excellent for grain cleaning machinery as the surface is smooth and withstands moisture.

#### Hardware Grade

Fig. No. 1794H

Mesh	No. Wire	Stock Widths, In.	★ NET 100 SQ. FEET
10	28	24, 30, 36	\$11.75
14	33	24, 30, 36	7.00
16	34	24, 30, 36	7.85
18	35	24, 30, 36	11.75
20	35	24, 30, 36	13.35
24	35	24, 30, 36	17.75

#### Long Mesh Grade

Fig. No. 1794 (see cut)

Mesh	Stock Width, In.	For	★ NET 100 SQ. FEET
2x 4	24	Beans	\$13.00
2x 9	24, 36	Cheat	13.00
2x10	24, 36	Cheat	13.00
3x12	24, 36	Flax	13.00
3x14	24	Flax	13.00
3x16	24	Flax	13.00
4x14	24	Flax	13.00
4x16	24	Flax	13.00

### ANNEALED STONE WIRE

Fig. 3382

No. 16 gauge. 8 inch inside diameter coil.  
Weight, 12 pounds each. Paper wrapped.

★ NET POUND, \$0.12



### DURABESTOS AND INDUSTRO TRUCK BRAKE LINING



Fig. No. 2760

Will not grow hard in service—it does away with creaking, squeaking, groaning brakes, and brings the car to a stop with ease and silence. Made from selected long fibre asbestos yarn, woven into a solid, tough, wear-resisting tape, in combination with special high-test brass wire which will not score or scratch the drums. It is then treated under vacuum and impregnated with a waterproof compound which will also resist the action of grease, mud, dust or gasoline. Fully guaranteed.

#### LIST PRICE PER FOOT

Durabestos—For Pleasure Cars						Industro—Truck for Heavy Duty					
Width, Inches	Thickness, Inches					Width, Inches	Thickness, Inches				
	1/32	3/64	1/16	5/64	3/32		1/32	3/64	1/16	5/64	3/32
1	\$0.40	\$0.45	\$0.60	\$0.80	\$0.90	1	\$0.60	\$1.00	\$1.05	\$1.25	\$1.65
1 1/4	.45	.50	.75	.90	1.10	1 1/4	.70	1.05	1.25	1.50	2.00
1 1/2	.53	.63	.80	1.05	1.30	1 1/2	.84	1.05	1.40	1.75	2.20
1 3/4	.63	.74	.95	1.25	1.50	1 3/4	.95	1.25	1.65	2.00	2.65
2	.74	.79	1.05	1.35	1.60	2	1.05	1.42	1.85	2.20	2.90
2 1/4	.85	.89	1.16	1.55	1.75	2 1/4	1.16	1.58	2.10	2.45	3.30
2 1/2	.95	1.00	1.37	1.75	2.05	2 1/2	1.31	1.79	2.35	2.80	3.65
2 3/4	1.05	1.10	1.45	1.90	2.25	2 3/4	1.45	1.95	2.55	3.10	4.00
3	1.15	1.20	1.58	1.95	2.35	3	1.60	2.10	2.65	3.20	4.35
3 1/4	1.25	1.35	1.75	2.15	2.70	3 1/4	1.80	2.30	2.85	3.60	4.75
3 1/2	1.30	1.40	1.85	2.30	2.90	3 1/2	1.85	2.50	3.05	3.80	5.05
3 3/4	1.45	1.55	2.05	2.55	3.10	3 3/4	2.10	2.75	3.45	4.05	5.45
4	1.55	1.65	2.15	2.60	3.15	4	2.20	2.85	3.50	4.10	5.85
4 1/4	1.65	1.75	2.35	2.95	3.50	4 1/4	2.35	3.10	3.90	4.60	6.15
4 1/2	1.75	1.80	2.50	3.10	3.70	4 1/2	2.45	3.30	4.15	4.85	6.55
4 3/4	1.85	1.95	2.65	3.25	3.90	4 3/4	2.60	3.50	4.35	5.10	6.85
5	2.00	2.05	2.70	3.15	3.95	5	2.75	3.55	4.20	5.10	7.25
5 1/2	2.15	2.25	3.05	3.80	4.55	5 1/2	3.00	4.10	5.05	5.95	7.95
6	2.30	2.45	3.15	3.95	4.75	6	3.25	4.20	5.25	6.13	8.70

BOLD figures indicate sizes stocked. THE LIGHT FACE figures are specials not in big demand and not stocked. For their economical production orders of not less than one hundred feet of a size is necessary.

DISCOUNT { Up to 24 Feet. .... 55% OFF  
                  { 25 Feet or More. .... 60% OFF

### BRAKE BAND RIVETS

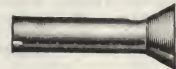


Fig. No. 389B

Packed in 1-lb. boxes without burrs, in uniform lengths. We do not break boxes.

No.	Size, Inches
7	1/2, 5/8, 3/4, 7/8, 1 1/4
8	1/2, 5/8, 3/4, 7/8, 1
9	1/2, 5/8, 3/4, 7/8

1 to 9 Pounds ..★ NET LB., \$0.63  
10 to 24 Pounds ..★ NET LB., \$0.58  
25 to 49 Pounds ..★ NET LB., \$0.54  
50 or More Pounds ★ NET LB., \$0.49

### OVERHEAD VEHICLE WASHER

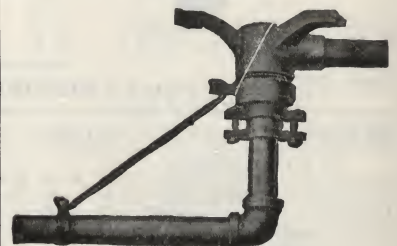


Fig. No. 3634

An indispensable accessory for garages, paint shops, service stations, etc. For automobile washing. Only a short piece of hose is required. Made entirely of brass with the exception of arm and ceiling flange. Grinds its own seat continually as being used, eliminating all possible chance of leakage.

★ NET EACH, \$7.25



## GALVANIZED STEEL WIRE CLOTH

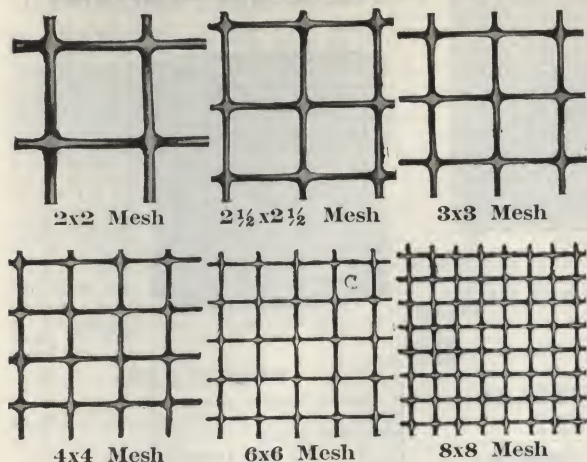


Fig. 1792

When ordering be particular to state the length, mesh, width and grade. The mesh when given in numbers as No. 2, 3 or 4 means respectively 2, 3 or 4 openings or holes to an inch.

Cloth cut from rolls cannot be exchanged.

No length less than 100 lineal feet shall be considered a roll.

## Standard Hardware Grade

Stock Widths		Square Feet to Roll	
Mes to In.	Stock Widths, Inches	Width, In.	Sq. Ft. in Roll
2	x2...12, 18, 24, 30, 36, 42, 48	12	100
2 1/2	x2 1/2...24, 30, 36	18	150
3	x3...18, 24, 30, 36, 42, 48	24	200
4	x4...18, 24, 30, 36, 42, 48	30	250
5	x5...24, 30, 36, 48	36	300
6	x6...18, 24, 30, 36	42	350
7	x7...24, 30, 36	48	400
8	x8...30, 36		

Standard hardware grade galvanized wire cloth in 24, 30, 36, 42 and 48 inch widths is furnished at prices shown below. Add to the prices shown for each 100 square feet: 12 inch width, \$1.00; 18 inch width, \$0.75; 54, 60, 66, or 72 inch widths, \$0.75.

## ★ NET 100 SQUARE FEET

IN 24, 30, 36, 42 AND 48 INCH ROLLS

For Other Widths See Extras in Above Paragraph

	Wire Gauge	100 or More Lineal Feet	50 to 99 Lineal Feet	25 to 49 Lineal Feet	1 to 24 Lineal Feet
2x2	19	\$4.25	\$4.40	\$4.55	\$4.75
2-1/2x2-1/2	20	\$4.50	\$4.65	\$4.80	\$5.00
3x3	21	\$4.55	\$4.70	\$4.85	\$5.05
4x4	23	\$4.85	\$4.50	\$5.15	\$5.35
5x5	24	\$4.95	\$5.10	\$5.25	\$5.45
6x6	25	\$5.20	\$5.30	\$5.45	
7x7	26	\$5.85	\$6.00	\$6.15	\$6.35
8x8	27	\$5.95	\$6.10	\$6.25	\$6.45
10x10	29	\$6.95	\$7.10	\$7.25	\$7.45

## RABBIT HUTCH FLOOR WIRE CLOTH

Fig. 1792RH. 5/8 inch mesh, 17 gauge, 30 inches wide.

★ NET 100 SQUARE FEET, \$6.25

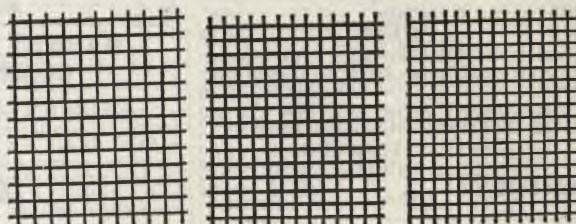
## GALVANIZED STEEL WIRE CLOTH

## LIST PRICES PER SQ. FT.

No.		Stock Widths,		List per		No.		Stock Widths,		List per	
Mesh	Wire	In.		Sq. Ft.		Mesh	Wire	In.		Sq. Ft.	
<b>Foundry Grade</b>											
1	11	24, 30, 36		\$0.17	4	18		24, 30, 36		\$0.17	
3/4	12	24, 30, 36		.17	5	19		24, 30, 36		.17	
5/8	13	24, 30, 36		.17	6	20		24, 30, 36		.17	
2	14	24, 30, 36	42, 48	.17	7	21		.....		.17	
3	16	24, 30, 36		.17	8	22		24, 30, 36		.17	
<b>Riddle Grade</b>											
1	13	24, 30, 36		\$0.12	5	21		24, 30, 36		\$0.12	
2	16	24, 30, 36	42, 48	.12	6	22		24, 30, 36		.12	
3	18	24, 30, 36		.12	8	24		24, 30		.12	
4	20	24, 30, 36		.12							

DISCOUNT ..... 15% OFF

## WINDOW SCREEN CLOTH



12 x 12

14 x 14

16 x 16

Fig. No. 3069

Rolls 100 ft. in length. Edges marked every 6 in., like a tape line, easy to measure off. Standard widths, 18 to 48 in., inclusive, by 2 in. steps. Sold in full rolls and half rolls of 50 feet only.

★ NET 100 SQUARE FEET  
IN 100 LINEAL FOOT ROLLS

18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42 and 48 Inch Widths.

12 Mesh Black Screen Cloth	\$2.05
14 Mesh Galvanized Screen Cloth	\$2.53
14 Mesh Bronze Screen Cloth	\$5.75
16 Mesh Bronze Screen Cloth	\$6.25

50 Lineal Foot Rolls. Same prices as above PLUS \$0.10.

Widths of 54, 60, 66 or 72 inches are 50 cents each 100 square feet additional.

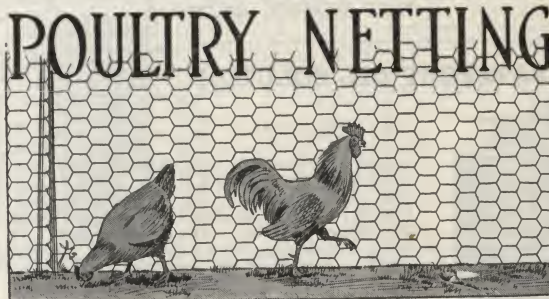


Fig. No. 1799

Highest grade of Poultry Netting manufactured. Unrolls flat and straight. Absolutely rust proof. Has three strand selvages of equal length. Easy to handle.

If not otherwise specified galvanized after weaving will be sent.

## LIST BALE OF 150 LINEAL FEET

Width, Ins.	Sq. Ft. In Bale	Galvanized—After Weaving		Galvanized—Before Weaving	
		1 Inch Mesh	2 Inch Mesh	1 Inch Mesh	2 Inch Mesh
12	150	\$2.53	\$1.45	\$2.20	\$1.26
18	225	\$3.62	\$1.98	\$3.15	\$1.72
24	300	\$4.55	\$2.50	\$3.96	\$2.17
30	375	\$5.55	\$2.94	\$4.83	\$2.56
36	450	\$6.59	\$3.55	\$5.73	\$3.09
42	525	\$7.56	\$4.00	\$6.57	\$3.48
48	600	\$8.54	\$4.45	\$7.43	\$3.87
60	750	\$10.52	\$5.62	\$9.15	\$4.89
72	900	\$12.73	\$6.50	\$11.07	\$5.65

DISCOUNT ..... 10% OFF



### DIXON'S MICROFYNE FLAKE GRAPHITE



Fig. 5129

A pure lustrous silky extra fine lubricating graphite powder that can be used in powder form or with oil or grease.

Graph-Air Gun, Filled..LIST, \$0.75  
Microfyne Graphite

LIST POUND, \$0.75  
Junior Graph-Air Gun. Not shown.  
In celluloid tube with shut-off nozzle  
.....LIST EACH, \$0.30

Graphitoleo. Mfrs. 692. In 3/4 by  
3-1/2 inch tube. 12 tubes on card.

LIST DOZEN, \$1.80

LIST EACH, \$0.18

DISCOUNT .....25% OFF

### HI-LIGHT BEARING BLUE

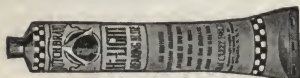


Fig. 5304

A fine, rich, concentrated, dependable pigment paste that spreads easily. Useful for checking up the evenness of a surface. If a surface is given a thin coating the compound will fill up the low spots and the high spots will appear bare. 3/4 by 4 inch tube. 12 in carton, weighs about 1-1/2 pounds.

★ NET EACH, \$0.18

★ NET DOZEN, \$1.75

### NEATSFOOT OIL SOLUTION



Fig. 2971

For softening, renewing and preserving all kinds of leather. For clutch facings, belting, or any leather that tends to get hard with age or wear. It makes friction clutches work smoothly by preventing 'grabbing' or sudden stopping.

Size	★ NET EACH	★ NET DOZEN
Can		
1/2 Pint	\$0.18	\$1.80
1 Pint	\$0.38	\$3.75
1 Quart	\$0.65	\$6.60
1 Gallon	\$1.75	....

### CORK SHEETS

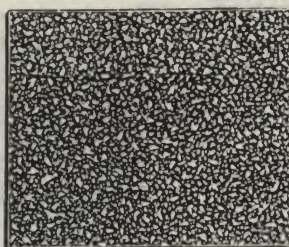


Fig. 2901

For automobile gasket and repair work. Sheets are 36x12 inches.

Thickness	★ NET EACH
Inches	1 to 9
1/16	\$0.30
3/32	\$0.42
1/8	\$0.56
	10 to 49
	\$0.24
	\$0.36
	\$0.48

### GASKET SHELLAC COMPOUND

Pure orange shellac, combined with finest far eastern gums cut in 188 proof alcohol. \* We do not break packages.

#### ★ NET PRICE

Size	No. in.	Net
Pkg.	Doz.	
2-oz.	12*	\$0.95
1-pt.	6*	\$5.75
		Net Can
1-qt.	6	\$0.85
1-gal.	6	\$2.75



Fig. No. 2892

### FORM-A-GASKET



Fig. 5127

**NO. 1 FAST DRYING—HARD SETTING.** For permanent assemblies that will probably remain untouched. Use for pipe lines, plates, manifolds, etc. and where there may be a constant vibration. Can be used to build up uneven flange surfaces and for emergency repairs on cracked or broken parts.

Fig. 5128

**NO. 2 NON-HARDENING—PLIABLE.** For assembling of parts that are bolted together and are likely to be disassembled. Joints, screw thread connections, etc. can be readily opened. It keeps paper, cork, asbestos, rubber, gaskets, etc. in good condition so they may be used again.

Size	Carton Contains	LIST EACH
1 Ounce Tube	12	\$0.25
2 Ounce Tube	12	\$0.40
3 Ounce Tube	6	\$1.00
1/4 Pint Can	12	\$0.50
1 Pint Can	6	\$1.50
1 Quart Can	1	\$2.50
1 Gallon Can	1	\$8.00

#### DISCOUNTS

Less than Carton	.....10% OFF
Carton Lots	.....25% OFF

### CLOVER COMPOUND FOR GRINDING AND LAPPING



Fig. No. 2866

Made of the hardest and sharpest abrasive powders, carefully graded and uniformly mixed with special petroleum hard oil. Will not break down under friction, melt, run or crumble. Non-magnetic, can be used on cast iron.

#### DUPLEX CANS

Each can contains 2 grades: D (coarse) for roughing and A (fine) for finishing.

**2 Oz. Duplex Cans**  
Singly .....★Net Each, \$ 0.22  
1 dozen lots...★Net per doz., 2.50  
6 dozen in case★Net per case, 13.50

**4 Oz. Duplex Cans**  
Singly .....★Net Each, \$ 0.37  
1 dozen lots...★Net per doz., 4.20  
6 dozen in case★Net per case, 22.50

#### SINGLE GRADE CANS

**SPECIFY GRADE.** One kind in pound can. A—Fine. 1A—Very Fine. 2A—Extra Fine. B—Medium. C—Medium Coarse. D—Course. E—Very Coarse.

**1 Pound Cans**  
Singly .....★Net Each, \$ 1.05  
6 cans or more.★Net per can, 1.00  
1 dozen lots...★Net per doz., 10.80

### "PEP" COMPOUND For Valve Grinding WATER MIXED



Fig. No. 2879

The original non-drying, non-freezing, water-mixed article. Works more than double as fast as any grease-mixed compound, and 50% faster than any other water-mixed compound.

One grade starts and finishes any grinding job. It can always be thinned—with water only.

No rust—but of course you must dry the finished work.

4 oz. cans.....List per Doz., \$6.00  
8 oz. cans.....List Each, .85  
16 oz. cans.....List Each, 1.50

Discount: In lots of less than 1 doz. 33 1/3% OFF  
1 doz. lots or more.....40% OFF

### CRANE WHEEL AND GEAR PULLERS

For removing gears, cams, collars, fly wheels, sprockets, universal joint yokes, automobile and truck wheels, etc. For bending pipe and for straightening shafting. Two styles: Two-Arm Puller; and a combined Two-Arm and Three-Arm Puller, called a Crowfoot Puller.



Fig. 3983. Two Arm Illustrated

Mfrs. No.	Size	Arms Inches	Accommodates Diam. to	Center Screw	★ NET EACH
0	Two-Arm	Small	3 & 6	5/8 x 9	\$ 5.40
0	Crowfoot	Small	3 & 6	5/8 x 9	\$ 8.10
2	Two-Arm	Medium	6 & 10	1 x 14	\$12.60
2	Crowfoot	Medium	6 & 10	1 x 14	\$18.00
3	Two-Arm	Large	7 & 11	1 1/4 x 17	\$18.00
3	Crowfoot	Large	7 & 11	1 1/4 x 17	\$25.20
3X	Two-Arm	Extra	8 & 13	1 1/2 x 20	\$29.70
3X	Three-Arm	Extra	8 & 13	1 1/2 x 20	\$45.00



### CUP LEATHER ASSORTMENT



Fig. 2867

Made especially for garage use. 72 up leathers of assorted sizes in a box.

★ NET SET, \$0.90

### GARAGE LEATHER WASHERS

Fig. 5126

Size Inch	★ NET DOZEN	Size Inch	★ NET DOZEN
5/32	\$0.24	1-1/2	\$0.46
3/8	\$0.24	1-3/4	\$0.52
1/2	\$0.24	2	\$0.74
5/8	\$0.24	2-1/4	\$1.08
3/4	\$0.26	2-1/2	\$1.28
7/8	\$0.26	2-3/4	\$1.44
1	\$0.32	3	\$1.60
1-1/8	\$0.34	3-1/2	\$2.65
1-1/4	\$0.36		
1-3/8			

### PACKING TOOLS

FOR ANY VALVE ROD, PUMP OR ENGINE STUFFING BOX

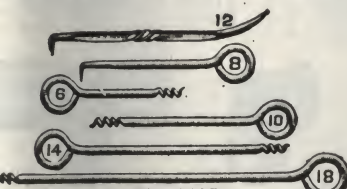


Fig. 2497

Made from special tool steel. Nickel plated. Warranted not to break.

No.	★ NET SET
6, 10, 12, 14	\$1.20
6, 8, 10, 12, 14, 18	\$2.00

### "CHICAGO"

### SCREW RAIL BENDER

FOR NUMEROUS BENDING JOBS



Fig. 2824

Widely used in mines because of compactness. May be used for many purposes. Forged from best O. H. steel. Square threads, machine cut, three to the inch, steel screws. Adjustable cap to fit rails.

★ NET PRICES EACH  
(Steel lever extra)

Capacity Size of Rails	Size of Hole for Lever, Inches	Span of Hooks, Inches	Diam. of Screws, Inches	Wt. Lbs.	★ NET EACH
135	1-3/4	28	3	200	\$31.25
100	1-3/8	28	2-3/4	170	\$26.60
85	1-3/8	28	2-5/8	145	\$23.95
75	1-1/4	24	2-1/2	110	\$19.30
50	1-1/8	20	2-1/4	85	\$16.65
25	1	16	2	65	\$12.65
16	1	14	1-3/4	40	\$10.00
10	7/8	14	1-1/2	30	\$10.00

### VISIBLE PUMP HOSE NOZZLE

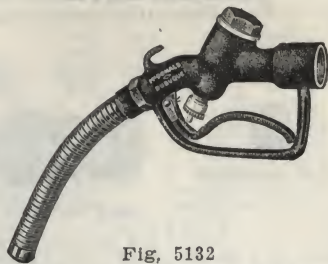


Fig. 5132

Listed as standard by Underwriters' laboratories. Gives full flow and operates with ease. The operating lever insures a comfortable grip and is constructed to eliminating the possibility of pinching the fingers. Flexible tubing spout. 1 inch. Weight, 3-3/4 pounds.

★ NET EACH, \$3.43

### RADIATOR FAUCET



Fig. 5133

Non-splash, long neck faucet operates with thumb pressure valve. Easily reaches ANY radiator intake. Controlled flow, regardless of the water pressure. 8-1/4 inches overall. 4-3/4 inch spout plus 1-3/4 inch turn down. 3/4 inch female hose pipe thread. All brass except thumb lever.

★ NET EACH, \$1.50

### BATTERY FILLER

Fig. 5134

Non-tip base. Refilled without removing jug from carrier. Takes any U. S. gallon glass jug. Cross brace locates jug in place. Rigid hose and hydrometer holder. Welded throughout.

★ NET EACH,  
\$1.65



### HUFFMAN DUO HYDRAULIC PUMP OILER



Fig. 5135

For all oiling jobs, with light or heavy oils. Improved hydraulic pump. Detachable brass nozzle. It will throw light oil up to 20 feet. Ball valve. One piece handle. Brass coupling. The 6 inch brass spout can be moved quickly to any direction.

3/4 Pint. . . . ★ NET EACH, \$0.98

### STEEL DOOR MATS

KEEPS DIRT OUT! SANITARY!

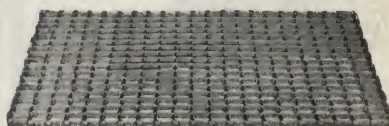


Fig. 4443



Close up showing clamped edge and fluted end.

Heavily galvanized to resist rust. Mat rolls up like a rug. Accumulations beneath the mat are easily removed. Long lengths, odd sizes, and special shapes, prices furnished on application.

No.	Size, Inches	★ NET EACH
1	16 by 24	\$0.80
2	18 by 30	\$1.15
3	22 by 36	\$1.65
4	24 by 42	\$1.95
5	30 by 48	\$2.00
6	36 by 48	\$3.40
7	36 by 54	\$3.80
8	36 by 60	\$4.35
9	36 by 72	\$5.20

### ALL STEEL CREEPER



Fig. 5131

LOW model for LOW cars. Built for hard service. No rough, sharp edges to tear clothes. 1-1/2 inch ball bearing casters bolted to the body. Built of 18 gauge sheet steel, cross braced underneath. Padded head rest. Green enamel finish. 18 by 39-3/4 inches. Shipping weight, 19 pounds.

★ NET EACH, \$3.30

### WOOD AUTO CREEPER

24 inches wide by 42 inches long included padded headrest. The hard wood strips are one half inch thick. The two outside strips are one inch higher than the main body. Roller bearing casters with 1-3/4 inch diameter wheels attached to wide heavy cross pieces. 2-1/4 inch clearance. Weight 16 pounds.

★ NET EACH, \$4.50



Fig. 5130



### COPPER TUBING

20 GAUGE. ANNEALED

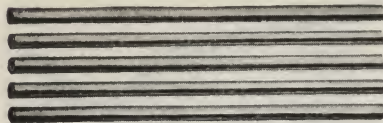
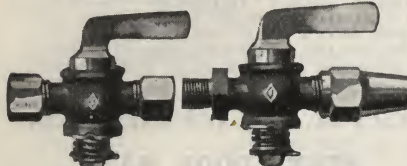


Fig. 2108

★ NET 100 FEET

O.D. Inch	Less than 50 feet	50 ft. or more	100 ft. or more
3-16	\$5.62	\$4.65	\$3.75
1-4	\$6.25	\$5.40	\$4.50
5-16	\$7.20	\$6.25	\$5.20
3-8	\$7.65	\$6.75	\$5.25
1-2	\$9.90	\$8.25	\$7.20

### BRASS SHUT-OFF COCKS



'Standard'

'S.A.E.'

For use with solderless compression couplings. Each plug is individually ground into a perfect seat and held tight by a coiled spring. Gasoline tight.

Mfrs. No.	Tubing O.D. Inches	Iron Pipe Thread	LIST EACH
--------------	--------------------------	------------------------	--------------

#### 3091. STANDARD TYPE FOR I.P.T. & TUBING

27EF	1-4	1-8	\$1.30
227EF	1-4	1-4	\$1.40
229EF	5-16	1-8	\$1.30
229EF	5-16	1-4	\$1.40
57EF	3-8	1-4	\$1.45

#### 3283. STANDARD FOR TUBING

28EF	1-4	...	\$1.30
30EF	5-16	...	\$1.40
58EF	3-8	...	\$1.70

#### 4669. S.A.E. TYPE FOR I.P.T. & TUBING

Prices Do Not Include S.A.E. Nuts			
27SAE	1-4	1-8	\$1.20
227SAE	1-4	1-4	\$1.30
229SAE	5-16	1-8	\$1.20
229SAE	5-16	1-4	\$1.40
57SAE	3-8	1-4	\$1.50

#### 4670. S.A.E. FOR TUBING

Prices Do Not Include S.A.E. Nuts			
28SAE	1-4	...	\$1.25
30SAE	5-16	...	\$1.30
58SAE	3-8	...	\$1.50

DISCOUNT ..... 50% OFF

### TUBE FLARING TOOL

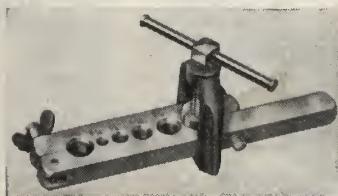


Fig. 4671

For making S.A.E. flared joints without cracking or splitting. For  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$  and  $\frac{1}{2}$  inch O.D. Tubing.

★ NET EACH, \$3.00

### TUBE CUTTER



Fig. 4672

For cutting brass tubing at a right angle from  $\frac{3}{16}$  to  $\frac{1}{2}$  inch O.D.

★ NET EACH, \$2.50

### SOLDERLESS COMPRESSION COUPLINGS

"STANDARD" TYPE—NO SOLDERING—NO FLARING

For Connecting Brass, Copper, Aluminum or Steel Tubing

O.D. of Tube Inch	Iron Pipe Thread End	LIST 100
----------------------------	-------------------------------	-------------



#### 60-F SLEEVE

3-16	...	\$2.00
1-4	...	\$2.00
5-16	...	\$2.50
3-8	...	\$3.50
1-2	...	\$10.50



#### 61-F NUT

3-16	...	\$5.50
1-4	...	\$6.00
5-16	...	\$8.00
3-8	...	\$10.00
1-2	...	\$21.00



#### 61-D NUT

3-16	...	\$7.50
1-4	...	\$8.00
5-16	...	\$10.50
3-8	...	\$13.50
1-2	...	\$31.50



#### 68-F CONNECTION

3-16	1-8	\$15.00
1-4	1-8	\$17.00
1-4	1-4	\$22.00
5-16	1-8	\$20.00
5-16	1-4	\$25.00
3-8	1-8	\$31.00
3-8	1-4	\$34.00
1-2	3-8	\$73.00

O.D. of Tube Inch	Iron Pipe Thread End	LIST 100
----------------------------	-------------------------------	-------------



#### 62-F UNION

3-16	...	\$23.00
1-4	...	\$25.00
5-16	...	\$31.00
3-8	...	\$39.00
1-2	...	\$95.00



#### 63-F CHECK VALVE

3-16	1-8	\$32.00
1-4	1-8	\$36.00
5-16	1-8	\$39.00
3-8	1-4	\$52.00
1-2	3-8	\$123.00



#### 66-F FEMALE COUPLING

3-16	1-8	\$18.00
1-4	1-8	\$20.00
5-16	1-8	\$22.00
3-8	1-8	\$34.00
1-2	3-8	\$86.00



#### 67-F FEMALE COUPLING

3-16	1-4	\$32.00
1-4	1-4	\$32.00
5-16	1-4	\$40.00
3-8	1-4	\$42.00

### "S.A.E." TYPE—TUBING MUST BE FLARED

For Connecting Brass and Copper Tubing

O.D. of Tube Inch	Iron Pipe Thread End	LIST 100
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#### 41-F UNION NUT

3-16	...	\$11.00
1-4	...	\$13.00
5-16	...	\$17.00
3-8	...	\$25.00
1-2	...	\$46.00



#### 42-F UNION COUPLING

3-16	...	\$18.00
1-4	...	\$19.00
5-16	...	\$23.00
3-8	...	\$35.00
1-2	...	\$55.00



#### 48-F UNION

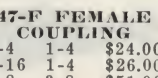
3-16	1-8	\$12.00
1-4	1-8	\$13.00
1-4	1-4	\$22.00
5-16	1-4	\$24.00
3-8	1-4	\$35.00
1-2	3-8	\$45.00

O.D. of Tube Inch	Iron Pipe Thread End	LIST 100
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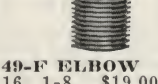
#### 46-F FEMALE COUPLING

1-4	1-8	\$17.00
5-16	1-8	\$20.00
3-8	1-4	\$32.00
1-2	3-8	\$52.00



#### 47-F FEMALE COUPLING

1-4	1-4	\$24.00
5-16	1-4	\$26.00
3-8	3-8	\$51.00
1-2	1-2	\$73.00



#### 49-F ELBOW

3-16	1-8	\$19.00
1-4	1-8	\$20.00
1-4	1-4	\$29.00
5-16	1-8	\$23.00
5-16	1-4	\$35.00
3-8	1-8	\$41.00
3-8	1-4	\$44.00
1-2	3-8	\$60.00

O.D. of Tube Inch	Iron Pipe Thread End	LIST 100
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#### 65-F ELBOW

3-16	...	\$35.00
1-4	...	\$36.00
5-16	...	\$45.00
3-8	...	\$51.00
1-2	...	\$109.00



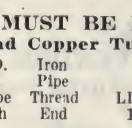
#### 69-F ELBOW

3-16	1-8	\$25.00
1-4	1-8	\$26.00
1-4	1-4	\$31.00
5-16	1-8	\$32.00
5-16	1-4	\$33.00
3-8	1-8	\$46.00
3-8	1-4	\$49.00
1-2	3-8	\$106.00



#### 70-F ELBOW

3-16	1-8	\$25.00
1-4	1-8	\$28.00
5-16	1-8	\$34.00
3-8	1-4	\$40.00
1-2	3-8	\$101.00



#### 72-F TEE

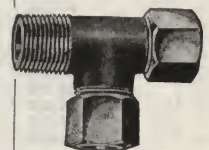
3-16	1-8	\$34.00
1-4	1-8	\$40.00
5-16	1-8	\$44.00
3-8	1-4	\$57.00
1-2	3-8	\$158.00

O.D. of Tube Inch	Iron Pipe Thread End	LIST 100
----------------------------	-------------------------------	-------------



#### 64-F TEE

3-16	...	\$40.00
1-4	...	\$44.00
5-16	...	\$48.00
3-8	...	\$66.00
1-2	...	\$180.00



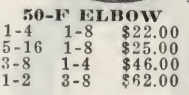
#### 71-F TEE

3-16	1-8	\$34.00
1-4	1-8	\$40.00
5-16	1-8	\$44.00
3-8	1-4	\$57.00
1-2	3-8	\$158.00



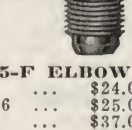
#### 72-F TEE

3-16	1-8	\$34.00
1-4	1-8	\$40.00
5-16	1-8	\$44.00
3-8	1-4	\$57.00
1-2	3-8	\$158.00



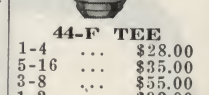
#### 50-F ELBOW

1-4	1-8	\$22.00
5-16	1-8	\$25.00
3-8	1-4	\$46.00
1-2	3-8	\$62.00



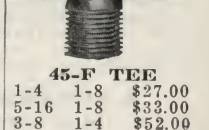
#### 55-F ELBOW

1-4	...	\$24.00
5-16	...	\$25.00
3-8	...	\$37.00
1-2	...	\$55.00



#### 44-F TEE

1-4	...	\$28.00
5-16	...	\$35.00
3-8	...	\$55.00
1-2	...	\$92.00



#### 45-F TEE

1-4	1-8	\$27.00
5-16	1-8	\$33.00
3-8	1-4	\$52.00
1-2	3-8	\$88.00

### SIZE OF S.A.E. THREAD

3-16	Outside Diameter	.....3-8 x24
1-4	Outside Diameter	.....7-16x20
5-16	Outside Diameter	.....1-2 x20
3-8	Outside Diameter	.....3-4 x16
1-2	Outside Diameter	.....3-4 x16

### DISCOUNT

Lots up to 99	.....50% OFF
Lots of 100 or more	.....50-10% OFF



# MASTER PADLOCKS

Master Keys can be furnished, specify padlock number, and quantity required, prices on request.



Fig. 5136. Mfrs. 44  
10c RETAIL  
**GREYHOUND.** 1-1/4 inch embossed steel case, cadmium rust-proofed. Excellent warded lever security. Spring tension steel rotary shackle, 3/16 inch diameter, 1/2 inch inside vertical clearance. 8 key changes—two nickel plated milled steel keys. 12 to display container. Weight, 1-7/16 pounds.  
LIST DOZEN .....\$1.20



Fig. 5137. Mfrs. 55  
15c RETAIL  
**GREYHOUND.** 1-1/2 inch embossed steel case, cadmium rust-proofed. Excellent warded lever security. Spring tension steel SWIVEL shackle, 1/4 inch diameter, 3/4 inch vertical clearance. 12 key changes. 2 nickel plated milled keys. 12 on attractive display, weight, 2 pounds.  
LIST DOZEN .....\$1.80  
10 inch chain attached \$3.60



Fig. 5138. Mfrs. 99  
25c RETAIL  
**GREYHOUND.** 1-11/16 inch embossed steel case, cadmium rust-proofed. Excellent warded lever security. Spring tension steel SWIVEL shackle, 7/8 inch vertical clearance, 1/4 inch diameter, 12 key changes. 2 nickel plated milled keys. 12 to display box, weight, 4 pounds.  
LIST DOZEN .....\$3.00  
10 inch chain attached \$4.80



Fig. 5139. Mfrs. 22  
25c RETAIL  
**STRONG BOY.** 1-1/2 inch LAMINATED steel case, the strongest construction known. Strong spring security. 20 different key changes. High carbon steel shackle, 1/4 inch diameter, 3/4 inch vertical clearance. Cadmium rust-proofed. 2 embossed nickel plated, corrugated steel keys. 12 to display, weight, 5 pounds.  
LIST DOZEN .....\$3.00  
10 inch chain attached \$4.80



Fig. 5140. Mfrs. 77  
50c RETAIL  
**JUNGLE KING.** 1-3/4 inch wedge-riveted embossed steel case. Highest grade BRASS cylinder. 4 pin tumbler locking mechanism. 750 key changes. Self-locking steel swivel shackle, 3/4 inch vertical clearance, 1/4 inch diameter. Steel pilfering protector. Heavy brass locking lever. Cadmium rust-proofed inside and out. 2 nickel silver embossed keys. 6 to display box, weight, 2-1/2 pounds.  
LIST DOZEN .....\$6.00  
10 inch chain attached \$7.80

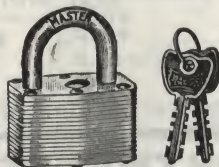


Fig. 5141. Mfrs. 500  
50c RETAIL  
**JUNIOR.** 1-3/4 inch LAMINATED steel case. Case-hardened steel shackle, 3/4 inch vertical clearance, 9/32 inch diameter. 2 corrugated embossed steel keys. 30 key changes. DOUBLE spring security. Cadmium rust-proofed. 6 to display carton, weight, 3-1/2 pounds.  
LIST DOZEN .....\$6.00  
10 inch chain attached \$7.80



Fig. 5142. Mfrs. 1400  
50c RETAIL  
**JUNIOR.** 1-3/4 inch LAMINATED steel case, smooth finish. Case-hard high carbon steel shackle, 3/4 inch vertical clearance, 9/32 inch diameter. DOUBLE spring security. Cadmium rust-proofed. 2 corrugated embossed steel keys. 30 key changes. 6 to display carton, weight, 3 pounds.  
LIST DOZEN .....\$6.00  
10 inch chain attached \$7.80



Fig. 5143. Mfrs. 7  
50c RETAIL  
**SECRET SERVICE.** 1-3/16 inch LAMINATED steel case. Solid BRASS cylinder, highest grade nickel silver pin tumbler security. 750 key changes. Steel shackle, 3/16 inch diameter, 1/2 inch vertical clearance. Solid BRASS locking lever. Steel pilfering protector. Cadmium rust-proofed. 2 embossed nickel silver keys. Each in carton, 6 to a display, weight, 2 pounds.  
LIST DOZEN .....\$6.00  
10 inch chain attached \$7.80



Fig. 5144. Mfrs. 3  
75c RETAIL  
**LITTLE GIANT.** 1-1/2 inch LAMINATED steel case. Solid BRASS cylinder, highest grade nickel silver pin tumbler security. Key changes practically unlimited. Hardened steel shackle, 11/16 inch vertical clearance, 7/32 inch diameter. Solid BRASS locking lever. Steel pilfering protector. Cadmium rust-proofed. 2 embossed nickel silver keys. 6 to display carton, weight, 3 pounds.  
LIST DOZEN .....\$9.00  
10 inch chain attached .....\$10.80

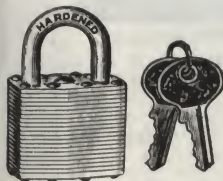


Fig. 5145. Mfrs. 1  
\$1.00 RETAIL  
**SECRET SERVICE.** 1-3/4 inch LAMINATED steel case. Tapered, re-strengthened, hardened steel shackle, 3/4 inch vertical clearance, 9/32 inch diameter. Highest grade pin tumbler security. Heavy brass cylinder and operating cam. Sturdy solid brass locking lever. Steel pilfering protector. Cadmium rust-proofed. 2 nickel silver embossed keys. Key changes practically unlimited. 6 to display box, weight, 4-1/2 pounds.  
LIST DOZEN .....\$12.00  
10 inch chain attached .....\$13.80



Fig. 5146. Mfrs. 5  
\$1.25 RETAIL  
**SECRET SERVICE.** 2 inch LAMINATED steel case, 25 plates. Solid BRASS cylinder, highest grade nickel silver pin tumbler security. Key changes practically unlimited. Hardened steel shackle, 3/8 inch in diameter, one inch inside vertical clearance. Solid BRASS locking lever. Steel pilfering protector. Rust-proofed with pure cadmium. 2 embossed nickel silver keys. 6 to display carton, weight, 6-1/2 pounds.  
LIST DOZEN .....\$15.00  
10 in. chain attached \$16.80

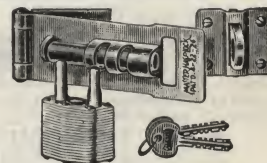


Fig. 5147. Mfrs. 450  
\$1.00 RETAIL  
**HASPLOCK.** A very handy unit combining a padlock, slide bolt and a heavy steel safety hasp. Length of hasp, 4-1/2 inches. Size of lock, 1-3/4 inches. Width of hasp, 1-1/2 inches. 2 corrugated embossed steel keys. 60 key changes. Cadmium rust-proofed. 6 to carton, weight, 7 pounds.  
LIST DOZEN .....\$12.00



Fig. 5148. Mfrs. 704  
25c RETAIL

**SAFETY HASP.** The FINEST on the market at the price. Length 4-1/2 inches. Staple of heavy one-piece steel stamping. Oversized strong design. BRASS pin. Cadmium rust-proofed. Cadmium plated screws. 12 in display carton, weight, 6 pounds.  
LIST DOZEN ...\$3.00

**DOUBLE HINGE SAFETY HASP.** Length 7-1/2 inches. Oversized strong design. BRASS pin. Staple of heavy one-piece steel stamping. Cadmium rust-proofed. Cadmium plated screws. Individual package. 12 to carton, weight, 7 pounds.  
LIST DOZEN ...\$4.20

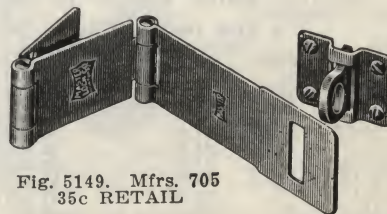


Fig. 5149. Mfrs. 705  
35c RETAIL

**DISCOUNT 1 to 5 .....10% 6 or More .....25% OFF**



W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## ARMORED CABLE

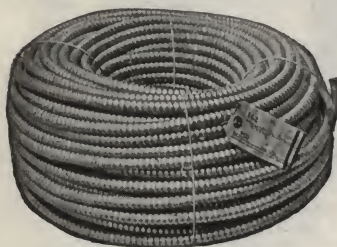


Fig. No. 6010

BX. Cuts and strips easily. Bends sharply without opening. Lies snug against walls or ceilings. Uniform in size. 2 conduits, No. 14 B. & S. gauge.

### ★ NET 100 FEET

1 to 249 Feet.....	\$3.70
250 to 999 Feet.....	\$3.40
1000 Feet or More.....	\$3.10

## RIGID CONDUIT PIPE

Wrought steel. Bends, cuts and threads easily. Sharp cut, standard gauge threads at both ends. One coupling. 10 foot lengths.



### ★ NET 100 FEET

Size Inches	Weight 10 Foot Length	★ NET 100 FEET
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#### BLACK ENAMEL—Fig. 6012B

1/2	8.52	\$7.29
3/4	11.34	\$9.38
1	16.84	\$13.52

#### GALVANIZED—Fig. 6012G

1/2	8.52	\$7.81
3/4	11.34	\$10.05
1	16.84	\$14.55

#### LIGHT GALVANIZED—Fig. 6012LG

1/2		\$6.08
3/4		\$7.76
1		\$11.14

## NON-METALLIC CONDUIT



Fig. 6100

Flexible. Built for use and abuse. Single wall construction. Tough compound. Interior is slick all the way.

### ★ NET 1000 FEET

Size Inches	Coil Feet	1 to 249 Feet	250 Ft. & Up
7/32	250	\$16.90	\$14.60
1/4	250	\$27.10	\$23.80

## CONDUIT ELBOWS

### ★ NET 100

Size, Inches	1/2	3/4	1
6013B Black	\$15.64	\$20.59	\$31.34
6013G Galv.	\$17.69	\$23.25	\$35.29

## CONDUIT COUPLINGS

### ★ NET 100

Size, Inches	1/2	3/4	1
6014B Black	\$6.36	\$9.20	\$12.07
6014G Galv.	\$6.99	\$10.05	\$13.21

## SPRING ASSORTMENTS

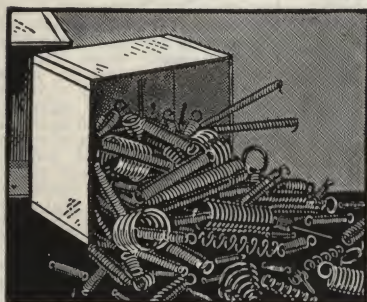


Fig. 5154

11 cadmium plated springs assorted. 8 extension springs, 1 each: 1/4x2; 1/4x4; 3/8x2; 3/8x3; 3/8x6; 1/2x4; 5/8x8; and 47/64x6 inches. 3 compression springs, 1 each: 1/2x12; 5/8x12; and 7/8x12 inches.

### ★ NET ASSORTMENT, \$0.50

Fig. 5155

22 cadmium plated springs assorted. 16 extension springs, 2 each: 1/4x2; 1/4x4; 3/8x2; 3/8x3; 3/8x6; 1/2x4; 5/8x8; and 47/64x6 inches. 6 compression springs, 2 each: 1/2x12; 5/8x12; and 7/8x12 inches.

### ★ NET ASSORTMENT, \$1.00

Fig. 5156

46 cadmium plated springs assorted. 36 extension springs, 2 each: 1/4x3; 1/4x4; 1/4x5; 1/4x6; 5/16x3, 18 gauge; 5/16x4; 5/16x5; 5/16x6; 5/16x3, 20 gauge; 3/8x3, 20 gauge; 3/8x3, 17 gauge; 3/8x4; 3/8x5; 3/8x6; 1/2x3; 1/2x4; 1/2x5; 1/2x6; 10 compression springs, 2 each: 1/4x8; 5/16x8; 3/8x8; 1/2x8; 7/8x8 inches.

### ★ NET ASSORTMENT, \$1.60

Fig. 5157

Cadmium plated springs in 12 inch lengths.

### ★ NET DOZEN

Size Inches	Gauge	Extension Spring	Compression Spring
1/4x12	20	\$1.20	\$0.60
5/16x12	19	\$1.20	\$0.60
3/8x12	18	\$1.60	\$0.80
7/16x12	17	\$1.60	\$0.80
1/2x12	16	\$1.60	\$0.80
5/8x12	17	\$1.60	\$0.80
3/4x12	14	\$2.00	\$1.10
7/8x12	15	\$2.20	\$1.10
1x12	12	\$2.40	\$1.20

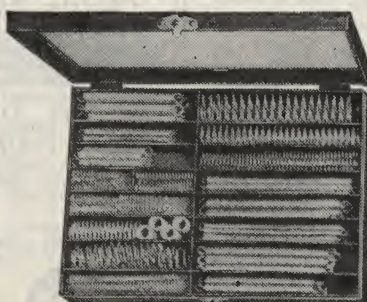


Fig. 5158

Cadmium plated springs. A carefully selected assortment of 153 springs.

No.	Size Inches	Gauge	No.
A1	7/8 x6	15	9
A2	5/8 x6	17	9
A3	3/8 x6	18	9
A4	21/64x6-1/2	20	9
A5	7/16x6-7/16	18	9
A6	1/4 x6-1/16	22	9
A7	25/64x5-5/8	14	9
A8	7/16x5-1/4	16	9
A9	31/64x4-1/2	16	9
A10	1/4 x4	22	9
A11	3/8 x3-1/4	19	9
A12	3/8 x25/32	19	9
A13	11/32x2-7/16	20	9
A14	3/8 x2	19	9
A15	5/8 x3	14	9
A16	5/16x5	17	9
A18	5/16x5	24	9

### ★ NET ASSORTMENT .... \$6.00

9 of a Size ... ★ Net Each, \$0.05

1 to 8 of a Size ★ Net Each, \$0.10

## GATE SPRINGS



Fig. 5160

Heavy weight for gates and doors. Japanned finish. 16 inches long. 1-1/8 inch diameter. 12 gauge wire.

### ★ NET EACH, \$0.30

### ★ NET DOZEN, \$3.00



Fig. 5159

Cadmium plated springs. A carefully assembled assortment, each size in a box, sold as an assortment of 304 springs, or open stock. One each of the springs is mounted on a display board.

No.	LIST EACH	Size Inches	Gauge	In Box
MJ1	\$0.10	7/8 x8	15	10
MJ2	\$0.10	5/8 x8	17	16
MJ3	\$0.10	3/8 x8	18	20
MJ4	\$0.10	21/64x6-1/2	20	16
MJ5	\$0.15	7/16x6-7/16	18	10
MJ6	\$0.10	1/4 x6-1/16	22	13
MJ7	\$0.15	25/64x5-5/8	14	5
MJ8	\$0.10	7/16x5-1/4	16	10
MJ9	\$0.10	31/64x4-1/2	16	8
MJ10	\$0.10	1/4 x4	22	13
MJ11	\$0.10	3/8 x3-1/4	19	14
MJ12	\$0.05	3/8 x25/32	19	11
MJ13	\$0.10	11/32x2-7/16	20	12
MJ14	\$0.10	3/8 x2	19	12
MJ15	\$0.10	5/8 x3	14	11
MJ16	\$0.10	.....	17	6
MJ17	\$0.10	.....	..	9
MJ18	\$0.10	5/16x6	24	8
MJ19	\$0.05	..... Assorted sizes		100

### ★ NET ASSORTMENT ... \$12.00

1 Size in Box Lots .... 50% OFF

Less than Box Lot ... LIST NET



W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

**We Can Furnish Any Type of Electric Cable or Wire You May Require for Any Specific Need.**  
**SPECIFY: Type, Number of Conductors, and Size of Conductors, Voltage, and Length**

## RUBBER COVERED WIRE



Fig. No. 6000. Black



Fig. No. 6001. White or Red

Solid tinned copper conductor. National Electric Code Standard. For low potential—0-600 volts. Single braid. Black finish, or paraffine finish, white or red. 500 feet in coil. Thickness of rubber  $\frac{3}{4}$  inch.

### ★ NET 100 FEET

Wire Gauge	Approx. Diam.	Wt. 1,000 Feet	Up to 499 Feet	500 Feet & Up
B & S	Over			
8	17-64	77	\$3.45	\$2.75
10	15-64	53	\$2.20	\$1.70
12	14-64	39	\$1.50	\$1.20
14	13-64	29	\$0.90	\$0.85

## TWIN CONDUCTOR WIRE



Fig. No. 6002

Two solid tinned copper conductors, rubber covered; laid parallel with single braid overall. For low potential, 0-600 volts. Type R. D. 500 feet in coil. Thickness of rubber,  $\frac{3}{4}$  inch.

### ★ NET 100 FEET

Wire Ga.	Approx. Diam.	Wgt. 1,000 Feet	Up to 499 Feet	500 Feet & Up
B & S				
12	16-64x29-64	82	\$3.75	\$3.10
14	15-64x27-64	62	\$3.45	\$2.85

## FIXTURE WIRE

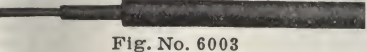


Fig. No. 6003

Light insulation. Solid tinned copper conductor, rubber insulation, single braid black finish. 1,000 feet in coil. Thickness of rubber  $\frac{3}{4}$  inch. Outside diameter,  $\frac{3}{4}$  inch.

### ★ NET 100 FEET

Wire Gauge	Weight 1,000 Feet	Up to 499 Feet	500 Feet & Up
B & S			
18	9	\$0.80	\$0.70

## ANNUNCIATOR WIRE

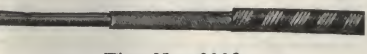


Fig. No. 6008

No. 18 B. & S. gauge. Solid bare copper wire insulated with two cotton wrappings applied in opposite directions saturated in paraffine. Assorted colors.

$\frac{1}{2}$  pound coil ★ Net per carton, \$0.35  
 1 pound coil ★ Net per carton, \$0.45  
 5 pound spool ★ Net per spool, \$1.90

## LAMP CORD



Fig. No. 6005

Type C. Flexible, twisted pair, green and yellow cotton covered. Black furnished when specified. Thickness of rubber is  $\frac{1}{32}$  inch. New code. 250 feet in coil.

### ★ NET 100 FEET

B & S Wire Gauge	No. Wires	Wgt. 1000 Feet	Up to 499 Feet	500 Feet & Up
16	26	36	\$2.25	\$1.80
18	16	27	\$1.85	\$1.35

## DUPLEX PARALLEL LAMPCORD



Fig. No. 6006

Type P.O. Silk covered. Flexible. Rubber thickness is  $\frac{1}{32}$  inch. 16 wires. 250 feet in coil. Specify color.

### ★ NET 100 FEET

B & S Wire Gauge	Weight 1000 Feet	Up to 500 Feet	500 Feet & Up
18	27	\$2.10	\$1.65

## UNDERWRITERS APPROVED PARALLEL LAMP CORD



Fig. 6109

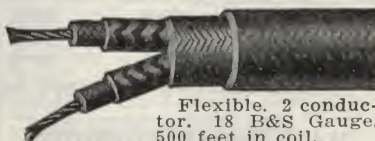
Rubber covered. Two conductors, flexible stranded No. 18. 250 foot spool. SPECIFY COLOR: Black, brown, ivory, or green.

### ★ NET 100 FEET

B & S Wire Gauge	Weight 1000 Feet	Up to 500 Feet	500 Feet & Up
18	27	\$1.35	\$1.00

## PORTABLE CORD

### COTTON OR RUBBER COVERED



Flexible, 2 conductor, 18 B&S Gauge. 500 feet in coil.

### BLACK COTTON BRAID COVER

Fig. 6007C

### ★ NET 100 FEET

Type	Rubber Thick-	Wgt. 1000 Feet	Up to 500 Feet	500 Feet & Up
P32	$\frac{1}{32}$	57	\$3.40	\$2.60
P64	$\frac{1}{64}$	57	\$2.80	\$2.10

### RUBBER CLAD COVER

Fig. 6007R

### ★ NET 100 FEET

Rubber Clad Style	Outside Rubber Thick-	Wgt. 1000 Feet	Up to 500 Feet	500 Feet & Up
Junior	.281	4.3	\$4.85	\$4.60
Senior	.391	7.7	\$6.65	\$6.15

## WEATHERPROOF WIRE



Fig. No. 6004

National Electric Code Standard. Solid copper wire, triple braid, black finish.

Am. Wire Ga.	Min. Insulation Thick-	No. Feet to Coil	Wt. 1000 Lbs.	200 Lb. Lot ★ NET
B & S	ness			
2	.0625	1300	260	\$27.20
4	.0625	2100	164	\$27.35
6	.0625	1700	112	\$28.10
8	.0469	2500	75	\$28.45
10	.0469	2200	53	\$29.40
12	.0469	3300	35	\$32.20
14	.0469	5000	25	\$33.60

Extras For Less Than 200 Pounds  
 1 to 24 Pounds ... Add CWT, \$8.00  
 25 to 49 Pounds ... Add CWT, \$6.00  
 50 to 74 Pounds ... Add CWT, \$4.00  
 75 to 99 Pounds ... Add CWT, \$2.00  
 100 to 199 Pounds ... Add CWT, \$1.00

## LEAD COVERED UNDERGROUND CABLE



Fig. 6110

Approved by the Underwriters for use in running cable in conduit underground or where there is a moist condition. B. & S. No. 14 Solid conductor.

### ★ NET 100 FEET

Conductor	Weight 100 Feet	Up to 500 Feet	500 Feet & Up
Single	14	\$3.45	\$2.95
Twin	23	\$5.90	\$5.10
Three	50	\$14.10	\$12.00

## SUPER FLEXIBLE WELDING CABLE

Fig. 6111

Size A.W.G.	Stranding No.	Approx. O. D.	Approx. Pounds 100 Feet	LIST 100 FEET
6	7x7x22=36	.410	130	\$21.00
4	7x7x27=35	.470	185	\$28.00
3	7x7x34=35	.500	225	\$31.50
2	7x7x34=34	.530	270	\$35.00
1	7x7x44=34	.580	330	\$42.00
1/0	7x7x44=33	.660	420	\$51.50
2/0	7x7x55=33	.705	515	\$60.50
3/0	7x7x55=32	.810	660	\$77.00
4/0	7x7x68=32	.875	810	\$91.00

### DISCOUNTS

1 to 249 Feet ..... 15% OFF  
 250 Feet or More ..... 35% OFF

## BOX CONNECTOR



Fig. 6011

Universal squeeze type. For BX armored cable, non-metallic sheath cable and rubber covered cords. For 1/2 inch knockout. Cadmium plated. Weight, 100, 8 pounds.

500 or More ..... ★ NET 100, \$3.30  
 1 to 499 ..... ★ NET 100, \$3.75

Prices shown for Wire, Cord and Conduit Pipe are for 100 Feet or more. Prices for less are 20% additional.



# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

## ELECTRICAL GOODS

### UNION OR ECONOMY RENEWABLE ENCLOSED FUSES



Ferrule Type Renewal Link

Knife Type Renewal Link

Fig. No. 6016

250 volts. Underwriters' Laboratories Inspected. National Electric Code Standard. Simplified design and rugged construction. Keep fuses usable regardless of the number of blowouts. Long service at low maintenance costs. Ease and quickness of assembly and disassembly, and the small number of loose parts, reduce time and labor of renewals to a minimum. Links are calibrated to fuse at rated voltage. Extra heavy grey horn fibre is used with brass ends securely attached to fibre case. Fusible element makes direct contact with both knife blades. F—Ferrule Type. KB—Knife Blade Type.

Amp. Cap.	Type	Length Overall Inches	Diam. of Tube Inches	Diam. Ferrule Inches	No. in Carton	Fuses List Each	Links List
15	F	2	1/2	9/16	10	\$ 0.40	\$ 2.00
30	F	2	1/2	9/16	10	\$ 0.40	\$ 2.00
45	F	3	3/4	13/16	10	\$ 0.80	\$ 4.00
60	F	3	3/4	13/16	10	\$ 0.80	\$ 4.00
Width Blade							
100	KB	5 7/8	1	3/4	5	\$ 1.80	\$ 9.00
125	KB	7 1/8	1 1/2	1 1/8	1	\$ 4.00	\$20.00
150	KB	7 1/8	1 1/2	1 1/8	1	\$ 4.00	\$20.00
175	KB	7 1/8	1 1/2	1 1/8	1	\$ 4.00	\$20.00
200	KB	7 1/8	1 1/2	1 1/8	1	\$ 4.00	\$20.00
250	KB	9 5/8	2	1 5/8	1	\$ 7.20	\$36.00
300	KB	9 5/8	2	1 5/8	1	\$ 7.20	\$36.00
400	KB	9 5/8	2	1 5/8	1	\$ 7.20	\$36.00
600	KB	10 3/8	2 1/2	2	1	\$11.00	\$55.00

### DISCOUNT

Up to \$9.99 List.....	10% OFF	30% OFF
\$10.00 to \$49.99 List.....	18% OFF	38% OFF
\$50.00 or More List.....	25% OFF	44% OFF

### GEM OR ECONOMY NON-INDICATING FUSES

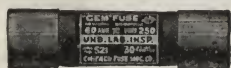


Fig. No. 6017 Ferrule Type

Fig. No. 6018 Knife Blade Type

Underwriters' Laboratories Inspected. National Electric Code Standard. 250 volts.

Ampere Capacity	Length Overall Inches	Carton Quantity	List Each	Ampere Capacity	Length Overall Inches	Carton Quantity	List Each
15	2	10	\$0.15	100	5 7/8	5	\$0.90
30	2	10	.15	200	7 1/8	1	2.00
45	3	10	.30	400	8 5/8	1	3.60
60	3	10	.30				

Make Amperes	Gem 15 to 60	Gem 100-400	Economy 15 to 60	Economy 100-400
Up to \$9.99 List.....	69%	54%	50%	40%
\$10.00 to \$49.99 List.....	72%	59%	55%	45%
\$50.00 or More List.....	74%	63%	60%	50%

Note: Different capacity fuses, when ordered in carton quantities, may be combined to obtain maximum discount.

### INSULATED SADDLE STAPLES



Fig. No. 6020

No.	Length Inches	Width Inches	★ NET 1,000
1	1/2	3/16	\$1.50
3	3/4	3/16	\$1.50
5	5/8	1/4	\$1.50
7	7/8	1/4	\$1.60

### MALLEABLE CONDUIT BUSHINGS



Fig. No. 6021

Conduit Size Inches	Unit Package	Weight Pounds Package	★ NET per 100
1/2	100	3	\$0.89
3/4	100	4	\$1.55
1	100	6	\$2.85

### JEFFERSON PLUG FUSES



Fig. No. 6019

Visible element. Underwriters' Laboratories Inspected. 125 volts. Sales counter carton contains 20 handy boxes of 5 fuses each.

### ★ NET 100

Ampere Capacity	1 to 49	50 or More
10	\$3.30	\$3.60
15	\$3.30	\$3.00
25	\$3.30	\$3.00
30	\$3.30	\$3.00

### CLEARSITE PLUG FUSES



Fig. 4163

Non-renewable. Listed by Underwriters. Indicates clearly, overloads, grounds and short circuits. Molded insulated fuse body, heat resisting and of great strength, will not break or shatter while in use. 100 in two color carton having 20 retail packages of 5 fuses each. 125 volts.

### ★ NET 100

Ampere Capacity	1 to 49	50 or More
10	\$3.30	\$3.00
15	\$3.30	\$3.00
25	\$3.30	\$3.00
30	\$3.30	\$3.00

### CONDUIT LOCKNUTS



Fig. No. 6022

Conduit Size Inches	Unit Package	Weight Pounds Package	★ NET per 100
1/2	100	2	\$0.58
3/4	100	3	\$0.90
1	100	4 1/2	\$1.65

### CONDUIT STRAPS



Fig. 6015. Galvanized. Furnished in 1/2, 3/4, or 1 inch sizes. Specify size.

Lots, Pounds	1	5	25	50
★ Net Pound	\$0.14	\$0.11	\$0.10	\$0.09



W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## OCTAGON OUTLET BOXES



Fig. No. 6023

3 1/4 inch octagon, 1 1/2 inch deep. Four 1/2 inch K.O. in sides, 1 in bottom. Ears tapped 8-32 on 2 1/4 inch centers. Four 1/4 inch untapped holes on sides for fixture studs. Weight, case of 50, 25 pounds.  
100 or More.....★ NET 100, \$5.80  
1 to 99.....★ NET 100, \$6.40

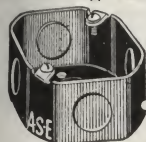


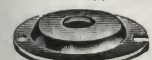
Fig. No. 6024

4 inch octagon, 1 1/2 inch deep. Four 1/2 inch K.O. in sides, 5 in bottom. Ears tapped 8-32 on 3 1/2 inch centers. Four 1/4 inch untapped holes for fixture studs. Weight, case of 50, 33 pounds.  
100 or More.....★ NET 100, \$8.40  
1 to 99.....★ NET 100, \$9.25

## OCTAGON BOX COVERS



6197. 3-1/4 inch flat blank cover. Weight, 100, 21 pounds.  
100 or more.....★ NET 100, \$2.65  
1 to 99.....★ NET 100, \$2.90  
6198. 4 inch flat blank cover. Weight, 100, 34 pounds.  
100 or more.....★ NET 100, \$3.40  
1 to 99.....★ NET 100, \$3.75



6199. 3-1/4 inch raised cover with 1/2 inch knockout. Weight, 100, 22 pounds.  
100 or more.....★ NET 100, \$3.70  
1 to 99.....★ NET 100, \$4.40  
6200. 4 inch raised cover with 2 inch knockout. Weight, 100, 37 pounds.  
100 or more.....★ NET 100, \$4.20  
1 to 99.....★ NET 100, \$5.05



6201. 3-1/4 inch raised cover with bushed hole for drop cord. Weight, 100, 22 pounds.  
100 or more.....★ NET 100, \$3.15  
1 to 99.....★ NET 100, \$3.45  
6202. 4 inch raised cover with bushed hole for drop cord. Weight, 100, 36 pounds.  
100 or more.....★ NET 100, \$4.20  
1 to 99.....★ NET 100, \$4.60



6203. 3-1/4 inch cover flat for snap switches complete with bolts and nuts for attaching. Weight, 100, 18 pounds.  
100 or more.....★ NET 100, \$3.95  
1 to 99.....★ NET 100, \$4.75  
6204. 4 inch cover flat for snap switches complete with bolts and nuts for attaching. Weight, 100, 36 pounds.  
100 or more.....★ NET 100, \$4.20  
1 to 99.....★ NET 100, \$5.05

## SQUARE OUTLET BOXES

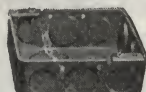


Fig. No. 6028

4 inches square. 1 1/2 inches deep. Ten 1/2 inch K.O. in sides, 5 in bottom. 2 nail holes in sides. Four 1/4 inch untapped holes for fixture studs. Weight, case of 50, 40 pounds.  
100 or More.....★ NET 100, \$9.70  
1 to 99.....★ NET 100, \$10.70

## 4 INCH SQUARE COVERS



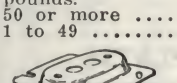
6205. Flat blank cover. Weight, 100, 44 pounds.  
100 or more.....★ NET 100, \$3.95  
1 to 99.....★ NET 100, \$4.35

6206. Raised cover, 1/2 inch knockout. Weight, 100, 37 pounds.  
100 or more.....★ NET 100, \$7.05  
1 to 99.....★ NET 100, \$8.50



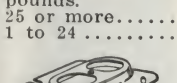
6207. Raised cover with 3/8 inch bushed hole for drop cord. Weight, 50, 24 pounds.  
50 or more.....★ NET 100, \$8.40  
1 to 49.....★ NET 100, \$10.05

6208. Flat cover for snap switches. Weight, 50, 21 pounds.  
50 or more.....★ NET 100, \$8.95  
1 to 49.....★ NET 100, \$10.70

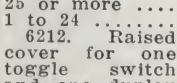


6209. Raised cover for single push switch. Weight, 25, 11 pounds.  
25 or more.....★ NET 100, \$11.50  
1 to 24.....★ NET 100, \$13.85

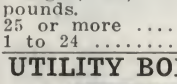
6210. Raised cover for single toggle switch. Weight, 25, 11 pounds.  
25 or more.....★ NET 100, \$11.50  
1 to 24.....★ NET 100, \$13.85



6211. Raised cover for single duplex receptacle. Weight, 25, 10 pounds.  
25 or more.....★ NET 100, \$11.50  
1 to 24.....★ NET 100, \$13.85



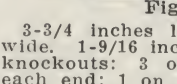
6212. Raised cover for one toggle switch and one duplex receptacle. Weight, 25, 11 pounds.  
25 or more.....★ NET 100, \$17.00  
1 to 24.....★ NET 100, \$20.50



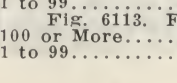
6213. 4 inch long, 2-1/8 inch wide, 1-7/8 inch deep. 1/2 inch knockouts. 3 on each side, 1 on each end and 2 on the bottom. On bottom, 2 untapped holes for fixture studs. Galvanized finish. Weight, case of 50, 32 pounds.  
50 or More.....★ NET 100, \$9.40  
1 to 49.....★ NET 100, \$11.25



6214. Blank cover. Galvanized. 20 or More.....★ NET 100, \$4.00  
1 to 19.....★ NET 100, \$4.80



6215. Raised cover for standard duplex flush receptacles. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95



6216. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

## SHALLOW CEILING BOXES



Fig. No. 6033

6033A. 3 1/2 inches round, 1/2 inch deep. Eight 5/8 inch K.O., one 1/2 inch conduit K.O. in center. 2 boom clamps. 25 1/2 pounds per case of 100.  
100 or More.....★ NET 100, \$6.30  
1 to 99.....★ NET 100, \$7.55



Fig. No. 6034

6033C. 3 1/2 inches round, 1/2 inch deep. Four 5/8 inch knockouts. Three 1/2 inch knockouts. Case of 100, 34 pounds.  
100 or More.....★ NET 100, \$6.30  
1 to 99.....★ NET 100, \$7.55

6034A. 4 inch round, 1/4 inch deep. Five 1/2 inch K.O. Ears tapped 8-32 on 3 1/2 inch centers. 33 pounds per case of 100.  
100 or More.....★ NET 100, \$4.45  
1 to 99.....★ NET 100, \$5.35

6034B. 4 inch round, 1/2 inch deep. Five 1/2 inch K.O. in bottom. Ears tapped 8-32 on 3 1/2 inch centers. 40 pounds per case of 100.  
100 or More.....★ NET 100, \$5.80  
1 to 99.....★ NET 100, \$6.40

## UNIVERSAL CONDUIT BOXES AND COVERS



Fig. 6213

4 inches long. 2-1/8 inches wide. 1-7/8 inches deep. 1/2 inch knockouts. 3 on each side, 1 on each end and 2 on the bottom. On bottom, 2 untapped holes for fixture studs. Galvanized finish. Weight, case of 50, 32 pounds.  
50 or More.....★ NET 100, \$9.40  
1 to 49.....★ NET 100, \$11.25

6214. Blank cover. Galvanized. 20 or More.....★ NET 100, \$4.00  
1 to 19.....★ NET 100, \$4.80

6215. Raised cover for standard duplex flush receptacles. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6216. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6217. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6218. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6219. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6220. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6221. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6222. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6223. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6224. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6225. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6226. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6227. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6228. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

6229. Toggle switch cover. 20 or More.....★ NET 100, \$6.60  
1 to 19.....★ NET 100, \$7.95

## FIXTURE STUDS

Fig. 6036

1/8 inch internal running thread and 3/8 inch external thread. Cadmium plated. Weight, 100, 8 pounds.  
100 or More.....★ NET 100, \$2.65  
1 to 99.....★ NET 100, \$3.63





W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## SECTIONAL SWITCH BOXES

May be converted into any number of gangs. Mounting ears are reversible for old or new work.

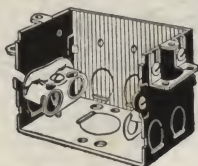


Fig. 6037

**FOR BX.** 3 inches long. 2 inches wide. Universal type clamps for BX or Loom.

Depth, Inches	2	2-1/2
Weight, 50 Pounds	34	38
50 or more, ★ NET 100	\$10.50	\$10.75
1 to 49, ★ NET 100	\$11.50	\$11.85

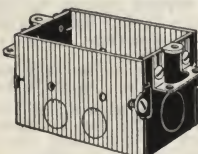


Fig. 6218

**FOR CONDUIT.** 3 inches long. 2 inches wide. Two 1/2 inch knock-outs on each side; 1 on each end; 1 in bottom.

Depth, Inches	2	2-1/2
Weight, 50 Pounds	30	36
50 or more, ★ NET 100	\$9.45	\$10.00
1 to 49, ★ NET 100	\$10.40	\$11.05

## BX SWITCH BOX



Fig. No. 6040

2 1/2 inch gangable BX switch box with 2 23/32 inch K.O. in each end, 4 in bottom, and 2 in each side. 2 heavy galvanized clamps for anchoring BX. Weight, 50, 30 pounds.

100 or More, ★ NET 100,	\$10.75
1 to 99, ★ NET 100,	\$11.85

## LOOM SWITCH BOX

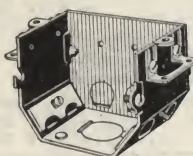


Fig. No. 6039

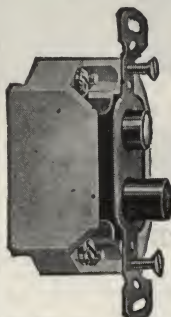
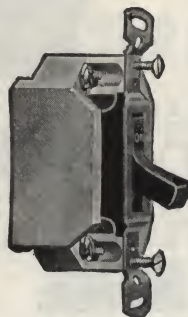
2 1/4 inches deep. Two loom K.O. in each beveled end, and two in each side. Weight, 50, 30 pounds.

100 or More, ★ Net 100,	\$9.15
1 to 99, ★ Net 100,	\$10.10

With 2 galvanized loom clamps.

100 or More, ★ Net 100,	\$9.70
1 to 99, ★ Net 100,	\$10.70

## SHALLOW TYPE FLUSH SWITCHES

Fig. No. 6041  
Push ButtonFig. No. 6042  
Toggle Type

National Electric Code Standard. 5 amperes, 250 volts. Toggle handle fits all rectangular slotted plates. Push buttons are of moulded insulation material and stand out straight. Base, 1 inch deep by 2 1/4 inches long.

Type Switch	LIST EACH
Push Button, single pole	.....\$0.18
Push Button, three way	.....\$0.27
Toggle, single pole	.....\$0.13
Toggle, three way	.....\$0.23

DISCOUNT	
1 to 9	.....20% OFF
10 to 99	.....30% OFF
100 or More	.....40% OFF

## SWITCH PLATES



Fig. No. 6045



Fig. No. 6046

Bakelite or Brush Brass, .040. 2 1/4 by 4 1/2 inches. National Electric Code.

Fig. For Switch	LIST EACH
6045 Push Button..	\$0.08 \$0.11
6046 Toggle .....	\$0.08 \$0.11

DISCOUNT	
1 to 24	.....20% OFF
25 to 99	.....30% OFF
100 or More	.....40% OFF

## ENTRANCE CAP



Fig. 6217

Malleable iron cadmium plated entrance fitting with composition bushing for wire entrance. 2 open holes and 2 knockout holes for 2, 3 or 4 wires. Weatherproof. Weight, 50, approximately 26 pounds.

1/2 Inch	.....★ NET EACH, \$0.25
3/4 Inch	.....★ NET EACH, \$0.31

## ATTACHMENT RECEPTACLES

Fig. No. 6043  
SingleFig. No. 6044  
Duplex

National Electric Code. Flush type. Single type has outside supporting screw holes 3 1/2 inch on centers; inside holes, 2 1/16 inch. Duplex type has supporting screw holes spaced 2 1/2 inches on centers.

6043 Single	.....List Each, \$0.09
6044 Duplex	.....List Each, \$0.12

## DISCOUNT

1 to 9	.....20% OFF
10 to 99	.....30% OFF
100 or More	.....40% OFF

## RECEPTACLE PLATES



Fig. No. 6047



Fig. No. 6048

Bakelite or Brush Brass, .040. 2 1/4 by 4 1/2 inches. National Electric Code.

Fig. For Receptacle	LIST EACH
6047 Single	.....\$0.08 \$0.11
6048 Duplex	.....\$0.08 \$0.11

## DISCOUNT

1 to 24	.....20% OFF
25 to 99	.....30% OFF
100 or More	.....40% OFF

## SURFACE SNAP SWITCHES



Fig. 6049

Metal covered. Outside diameter of base, 2 inches. Supporting screws spaced 1 1/2 inches. Slotted. 125 volts.

★ NET EACH	
Singly 10 or more	
Single pole, 5 amp.	\$0.26 \$0.21
Three point, 3 amp.	.45 .39

## BAKELITE SNAP SWITCH

Fig. 6093

Bakelite cover and base. Outside diameter of base 2 1/2 inches. 125 volts. Supporting screws spaced 1 1/2 inches. Single pole.



6 Ampere	.....List Each, \$0.16
10 Ampere	.....List Each, \$0.34

## DISCOUNT

1 to 9	.....20% OFF
10 to 99	.....30% OFF
100 or More	.....40% OFF



# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

# ELECTRICAL GOODS

## METER TEST SWITCHES

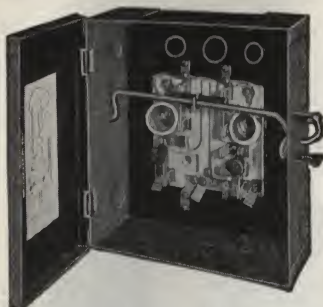


Fig. No. 6052A

3 wire main. Underwriters' Approved. A full view of complete working parts, it is unnecessary to interrupt service or disconnect wires for testing. Knockouts in sides, end and back for 1/2 or 3/4 inch conduit. Index card for circuits. Diagram inside of door gives complete wiring details. 125-250 volts. 30 amperes. 3 poles. 2 blades.

No.	Branch Circuits	No. Fuses	★ NET EACH
6052A	None	2	\$2.25
6052B	Two	1	\$3.25

## EXTERNALLY OPERATED ENTRANCE SWITCHES

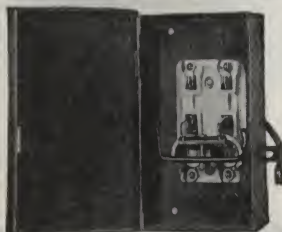


Fig. No. 6053

1/2 inch and 3/4 inch K.O. all four sides, top and bottom of back. Porcelain switch. 3 pole is fused neutral. Switch may be locked OFF or ON.

2 Pole, 30 Ampere...★ Net Each, \$1.00  
3 Pole, 30 Ampere...★ Net Each, 1.65

## CUTOUT BOXES

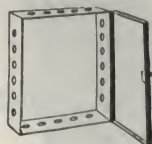


Fig. No. 6054

Surface Type. Underwriters' Labeled. 1/2 inch conduit knockouts all around. Holes in each corner of back for mounting. Electrically welded. Tight door flanged on four sides.

Width Inches	Height Inches	Depth Inches	★ NET EACH
6	9	3	\$0.57
8	10	3	\$0.86
10	12	3	\$1.20

Prices on other sizes on application.

## TRUMBULL SWITCHES

All types switches not shown may be furnished. Write for prices.



### TYPE "A" SAFETY

Fig. No. 6056 (3 Pole Fusible)

Externally operated. Safety type. Quick positive make and quick break.

No. 6055 Single Throw—No Fuse				
Amp.	Pole	Volts, AC	Wt. Lbs.	List
30	2	250	11	\$11.00
30	3	250	12	13.00
30	2	575	14	11.00
30	3	575	17	18.00
60	2	575	13	15.00
60	3	575	18	18.00
100	2	575	22	23.00
100	3	575	25	27.00
200	2	575	31	31.00
200	3	575	39	38.00

400-600 Prices on Application.

No. 6056 Single Throw—Fusible				
Amp.	Pole	Volts, AC	Wt. Lbs.	List
30	2	250	12	\$12.00
30	3	250	14	15.00
30	2	575	18	18.00
30	3	575	21	22.00
60	2	250	14	15.00
60	3	250	20	20.00
60	2	575	20	19.00
60	3	575	22	23.00
60	3	600	22	23.00
100	2	250	27	30.00
100	3	250	30	30.00
100	2	600	32	30.00
100	3	600	36	35.00
200	2	250	44	40.00
200	3	250	53	45.00
200	2	575	50	47.00
200	3	575	54	58.00

400-600 Prices on Application.



### TYPE C NON-SAFETY

Fig. No. 6057 (No Fuse)

Non-Safety. Externally operated punched-clip switches. Quick break.

No. 6057 Single Throw—No Fuse				
Amp.	Pole	Volts, AC	Wt. Lbs.	List
30	2	250	6	\$ 5.50
30	3	250	9	7.00
30	3	575	13	9.00
60	2	250	11	9.00
60	3	250	13	10.00
60	3	575	13	12.00

No. 6058 Single Throw—Fusible				
Amp.	Pole	Volts, AC	Wt. Lbs.	List
30	2	250	8	\$ 6.00
30	3	250	9	7.50
30	3	575	19	12.00
60	2	250	12	10.00
60	3	250	17	11.00
60	3	575	20	15.00

Up to \$14.99 List .... 10% OFF  
\$15.00 to \$99.99 List . . 25% OFF  
\$100.00 List or Over . . 30% OFF

## TELEPHONE AND BATTERY SWITCHES



Fig. No. 6061 (D.P.D.T.)

National Electric Code Standard. 125 volts, 15 amperes.

No.	Pole	Throw	LIST EACH
6061A	Single	Single	\$0.19
6061B	Double	Single	\$0.32
6061C	Single	Double	\$0.25
6061D	Double	Double	\$0.38
1 to 9			20% OFF
10 or More			30% OFF

## EDISON PLUG CUTOUTS



Fig. No. 6059A

National Electric Code Standard. 6059A. (Mfrs. 2587.) Double pole, double branch, 0-30 amperes, 125 volts. 5 1/2 x 3 inches.

	LIST EACH, \$0.53
1 to 4	20% OFF
5 or More	30% OFF

## SQUEEZE CONNECTORS



Fig. 6050

For use on armored cable or cord; lead cable; metallic conduit; etc. 3/8 inch. Fits 1/2 inch knockout. Cable opening is 7/32 to 21/32 inch. 50 in carton. 500 in package.  
1 to 99 .....★ NET 100, \$5.20  
100 to 450 .....★ NET 100, \$4.06  
500 or More.....★ NET 100, \$3.57

## GROUND CLAMPS

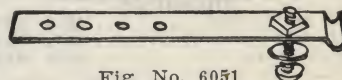


Fig. No. 6051

3/8 to inch. Old code only.

★ Net per 100, \$4.00

## ROSETTES

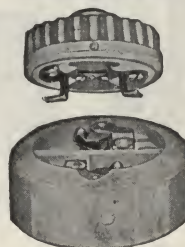


Fig. No. 6076

Concealed base. National Electric Code. Fuseless type. 3 amperes—250 volts.

	Base	Diam. Base	Hole Spacing	LIST EACH
Concealed	2 1/4	2 1/4	1 1/2	\$0.14
Cleat	2 1/4	2 1/4	1 1/2	\$0.14
1 to 9				20% OFF
10 or More				30% OFF



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# ELECTRICAL GOODS



## BRASS SHELL SOCKET RECEPTACLES NATIONAL ELECTRICAL CODE



Fig. No. 6062

Key Type. 250 watts—250 volts.  
Pendant Cap .....List Each, \$0.17  
½ Inch Cap .....List Each, \$0.23



Fig. No. 6063

Keyless. 660 watts—250 volts.  
Pendant Cap .....List Each, \$0.15  
½ Inch Cap .....List Each, \$0.25



Fig. No. 6064

Pull Chain. 250 watts—250 volts.  
Pendant Cap .....List Each, \$0.26  
½ Inch Cap .....List Each, \$0.25

### DISCOUNT

1 to 24 .....20% OFF  
25 to 249 .....30% OFF  
250 or More .....40% OFF

## BRASS SHELL WALL RECEPTACLES

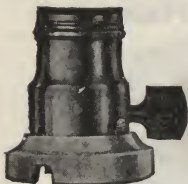


Fig. No. 6065  
Key Type  
250W-250V



Fig. No. 6066  
Keyless  
660W-250V

National Electric Code. Porcelain base and side screws.

Type	Kind	Base Diam.	LIST EACH
Key	Slotted	2 3/16	\$0.31
Key	Concealed	2 3/16	\$0.31
Keyless	Slotted	2	\$0.26
Keyless	Concealed	2	\$0.26

### DISCOUNT

1 to 9 .....20% OFF  
10 to 99 .....30% OFF  
100 or More .....40% OFF

## BAKELITE SOCKETS



Fig. No. 6067



Fig. No. 6068

Key Type

Pull Chain

Fig. No. 6069 Keyless

Genuine Bakelite Shells. May be used for either ¼ inch fixture or drop cord. Made to take standard UNO holder.

6067. Key Type ....List Each, \$0.24  
6069. Keyless ....List Each, \$0.21  
6068. Pull Chain ....List Each, \$0.28

### DISCOUNT

1 to 9 .....20% OFF  
10 to 249 .....30% OFF  
250 or More .....40% OFF

## PORCELAIN SOCKETS NATIONAL ELECTRICAL CODE



Fig. No. 6070 (Pendant Cap)

Key Type. 250 watts—250 volts.

Cap .....LIST EACH  
½ Inch Brass Fixture .....\$0.28  
Pendant .....\$0.45



Fig. No. 6071 (Brass Cap)

Keyless. 660 watts—250 volts.

Cap .....LIST EACH  
Pendant .....\$0.22  
½ Inch Brass Fixture .....\$0.37



Fig. No. 6072

Pull Chain

250 watts

250 volts

Pendant Cap

LIST EACH, \$0.50

½ Inch Brass

Fixture Cap

LIST EACH, \$0.62

### DISCOUNT—Porcelain Sockets

1 to 9 .....20% OFF  
10 to 99 .....30% OFF  
100 or More .....40% OFF

## PORCELAIN RECEPTACLE NATIONAL ELECTRICAL CODE

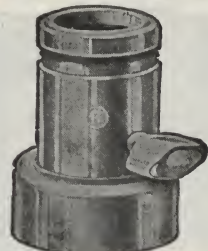


Fig. No. 6073

No. 6073. Key Type. 250 watts—250 volts. Small concealed base, 2 1/8 inch diameter. Screw hole spacings, 1 inch .....LIST EACH, \$0.49



Fig. No. 6074

No. 6074. Two Piece. For open or concealed wiring. Covered terminals. Outside diameter, 2 1/8 inches. Screw hole spacing, 1 1/8 inches. 660 watts—250 volts.

LIST EACH, \$0.14

DISCOUNT—Porcelain Receptacles  
1 to 9 .....20% OFF  
10 to 99 .....30% OFF  
100 or More .....40% OFF

## OUTLET BOX RECEPTACLE



Fig. No. 6075

National Electric Code. 250 volts—660 watts. Open terminals. Black covers. Holes for supporting screws; in 3 1/4 inch cover, spaced 2 1/4 inches; in 4 inch cover, 3 1/2 inches on centers.

3 1/4 Inch Cover .....List Each, \$0.15

4 Inch Cover .....List Each, \$0.17

### DISCOUNT

1 to 9 .....20% OFF  
10 to 99 .....30% OFF  
100 or More .....40% OFF

## TWO WAY SOCKET



Fig. No. 6081

Made of synthetic material. Brown color.

1 to 9 .....★NET EACH, \$0.10  
10 or more .....★NET EACH, \$0.09



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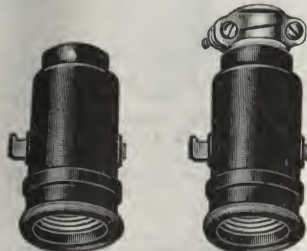
W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

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# A ELECTRICAL GOODS A

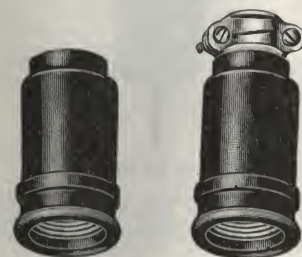
## PROTEX RUBBER COVERED SOCKETS

Approved by the Underwriters' Laboratories. For all services up to 660 watts, 250 volts. The outer covering is made of high quality rubber compound. Shockproof and safe. 7/16 inch cord hole. 1/8, 1/4, 3/8 or 1/2 inch bushed type, prices on request.

Fig. 6131  
PlainFig. 6132  
With Cord Grip

Push socket pendant type.

Fig.	Type	1 to 24 in	25 in	100 in
6131	Plain	★NET EA.	★EA.	★EA.
6132	Cord Grip	\$0.60	\$0.53	\$0.45

Fig. 6133  
PlainFig. 6134  
With Cord Grip

Keyless socket, pendant type.

Fig.	Type	1 to 24 in	25 in	100 in
6133	Plain	★NET EA.	★EA.	★EA.
6134	Cord Grip	\$0.47	\$0.42	\$0.35

## WATERTITE RUBBER WEATHERPROOF SOCKET



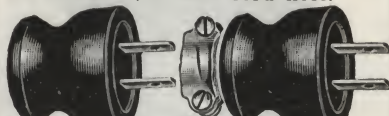
Fig. 6120

For any use up to 660 watts, 600 volts. Positively waterproof and nonbreakable. May be used as an under-water unit indefinitely without injury or short-circuit in socket or lamp. Meets all requirements for outside use and in damp places. Standard shade holder groove. The lamp effectively seals the socket. 1-1/2 inch outside diameter.

1 to 9	★NET EACH, \$0.20
10 in carton	★NET EACH, \$0.18
100 in carton	★NET EACH, \$0.15

## SAFEGWAY RUBBER COVERED PLUGS AND CONNECTORS

Approved by Underwriters' Laboratories. Built for heavy duty industrial service. Safe to handle and are practically non-breakable. Up to 15 ampere capacity with 110-125 volts. 10 ampere capacity with 220-250 volts. 7/16 inch cord hole.

Fig. 6121  
PlainFig. 6122  
With Cord Grip

2 Wire cap or plug.

Fig.	Type	1 to 9 in	10 in	100 in
6121	Plain	★NET EA.	★EA.	★EA.
6122	Cord Grip	\$0.24	\$0.21	\$0.18

Fig. 6123  
PlainFig. 6124  
With Cord Grip

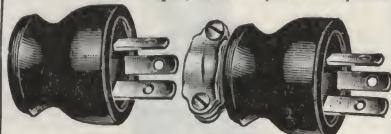
Connector, 2 wire body.

Fig.	Type	1 to 9 in	10 in	100 in
6123	Plain	★NET EA.	★EA.	★EA.
6124	Cord Grip	\$0.32	\$0.28	\$0.24



Illustrating Fig. 6126. With Cord Grip Connector and plug. 2 wire body and cap.

Fig.	Type	1 to 9 in	10 in	100 in
6125	Plain	★NET EA.	★EA.	★EA.
6126	Cord Grip	\$0.56	\$0.49	\$0.42

Fig. 6127  
PlainFig. 6128  
With Cord Grip

3 wire grounded plug.

Fig.	Type	1 to 9 in	10 in	100 in
6127	Plain	★NET EA.	★EA.	★EA.
6128	Cord Grip	\$0.40	\$0.35	\$0.30



Fig. 6129

2 wire separable swivel plug.

1 to 9	★NET EACH, \$1.00
10 in carton	★NET EACH, \$0.87
100 in carton	★NET EACH, \$0.75



1 to 24	★NET EACH, \$0.07
25 in carton	★NET EACH, \$0.06
100 in carton	★NET EACH, \$0.05

## CONDUIT BOX AND FIXTURE SWITCH

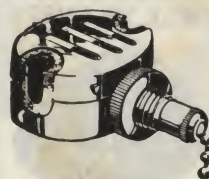


Fig. 6136

6 Ampere. Thin model. With chain. 7/16 inch diameter stem by 3/16 inch long. Listed as standard by the Underwriters' Laboratories.

1 to 9	★NET EACH, \$0.56
10 in carton	★NET EACH, \$0.49
100 in package	★NET EACH, \$0.42

## LINK SWITCH

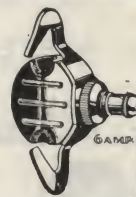


Fig. 6135

6 Ampere. Thin model. Listed as standard by the Underwriters' Laboratories.

1 to 9	★NET EACH, \$0.56
10 in carton	★NET EACH, \$0.49
100 in package	★NET EACH, \$0.42

## ATTACHMENT PLUGS

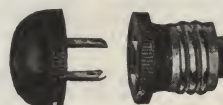


Fig. No. 6083

National Electric Code. Composition. Cap has elongated hole for twin portable cord.

Body only	List Each, \$0.04
Cap only	List Each, \$0.04
1 to 24	20% OFF
25 or more	30% OFF

## TRIPLE TAP

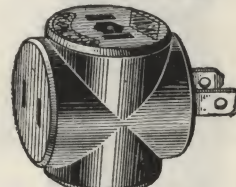


Fig. No. 6082

Permits three connections to be made. Synthetic material. Black or brown. Carton of 10, weight, 2 pounds.

1 to 9	★NET EACH, \$0.07
10 or more	★NET EACH, \$0.06

## RUBBER COVERED HANDLE PLUG

Fig. 6130



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# A ELECTRICAL GOODS A

## NU-CODE DOOR BELL TRANSFORMER



Fig. No. 6078

Mounted on a cover which will fit both 3 1/4 and 4 inch octagon outlet boxes. Knockout in cover for drop cord. Simple to install, saves time and material charges. For homes and small flat buildings, etc. Operates without core loss. Secondary 10 volts. Capacity 25 watts. Voltage 100-120. 50-133 cycles. Size 2 1/4 x 2 3/4 x 2 1/4 inches. Weight, 1 1/4 pounds.

1 to 9.....★ **NET EACH, \$0.78**  
10 or More.....★ **NET EACH, \$0.65**

## WIZARD DOOR BELL TRANSFORMER

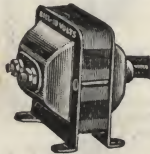


Fig. No. 6079

Sturdy. For the average residence or small flat building. The secondary is 10 volts which is sufficient to operate door bells, buzzers, annunciators, door openers, etc. Size 2 1/4 x 2 3/4 x 2 3/4 inches. 5 watts, 100-120 volts. 50-133 cycles. Weight, 1 pound.

1 to 9.....★ **NET EACH, \$0.56**  
10 or More.....★ **NET EACH, \$0.46**

## PERFECT DOOR BELL

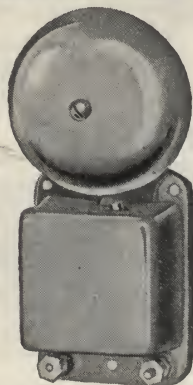


Fig. No. 6077

Non-adjustable. Small, neat, compact, highly finished in grey. Made of best materials. No striker arm or ball. No trouble. You can paint all around door bell and not put it out of order. Will ring on two dry cells or on a 6-8 volt transformer, A. C.

2 1/2 Inch Bell.....★ **Net Each, \$0.40**  
3 Inch Bell.....★ **Net Each, .44**  
4 Inch Bell.....★ **Net Each, .55**  
BUZZER.....★ **Net Each, .38**

## AIR-COOLED TRANSFORMERS CUTS YOUR ELECTRIC COSTS

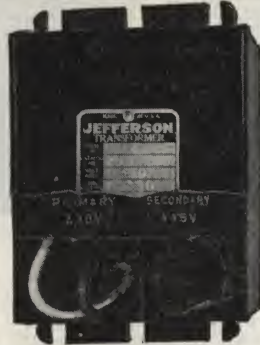


Fig. 6137

For use where there is a 220 to 240 Volt (low rate) power line to reduce the voltage to 110 to 220 Volts for serving lamps and electrical equipment such as standard electric drills, grinders, small electric motors, soldering irons, etc. The savings obtained from the use of this transformer pay worthwhile returns. Listed as standard by the Underwriters' Laboratories. Entirely closed, separate compartments for primary and secondary splices. Double wound type.

Capacity Depth, Width Weight ★ **NET**  
Amperes Length, Inches Pounds **EACH**

220-230-240 Volt Primary — 110-115-120 Volt Secondary—60 Cycles.

50	3-3/4x4-1/8x6-11/16	7-1/2	\$7.50
100	5 x4-7/8x7-5/8	11-3/4	\$8.50
250	5 x4-7/8x7-5/8	14-3/4	\$11.50
500	6 x5 x11	28	\$16.00
750	6-3/4x5 x11	35	\$20.00

220 - 240 Volt Primary — 115 - 230 Volt Secondary — 60 Cycles.

1000	7 x8-1/4x12	59	\$25.50
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## TRI-VOLT DOOR BELL TRANSFORMER



Fig. 6138

5 watts. Secondary 6, 12, and 18 volts. Recommended for heavy work, and where long leads are required. 2 by 2-1/8 by 3-3/4 inches.

1 to 4.....★ **NET EACH, \$0.96**  
5 to 9.....★ **NET EACH, \$0.93**  
10 or More.....★ **NET EACH, \$0.77**

## PRESS BUTTON



Fig. No. 6080

2 1/2 inch round. Brush brass finish. Long life. Special steel flange prevents wearing. Tinned binding screws.

★ **Net Each, \$0.10**

## SOLID PORCELAIN KNOB



Fig. No. 6084

No. 5 1/2. 1 3/4 inches high. 1 1/4 inch diameter. 1/4 inch hole. 3/16 inch groove.

100 or More.....★ **Net 100, \$1.50**  
Less than 100.....★ **Net 100, \$1.80**

## SPLIT PORCELAIN KNOBS



Fig. No. 6085

Bull Dog. Glazed, Assembled Split Knob. Cement coated, extra length nail. Genuine leather washer. Code standard. 1 3/4 inches high. 1 1/4 inches diameter. 1/4 inch hole. 1/4 inch groove.

100 or More.....★ **Net 100, \$1.73**  
Less than 100.....★ **Net 100, \$2.08**

## PORCELAIN WIRE CLEATS

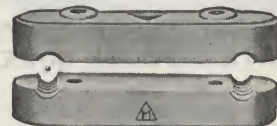


Fig. No. 6086 (Two Wire)

Unglazed. 1 1/4 inches high. 5/8 inch wide. 3 3/4 inches long. 1/4 inch groove. 1/4 inch holes.

2 Wire.....★ **Net 100 Sets, \$2.00**  
3 Wire.....★ **Net 100 Sets, \$2.15**  
Less than 100...★ **Net 100 Sets, \$2.75**

## STANDARD PORCELAIN UNGLAZED TUBES



Fig. No. 6087

Lgth. Ins.	Hole Ins.	Diam. Outside Ins.	★ <b>Net 100</b>	★ <b>Net Each</b>
3	5/16	9/16	\$0.73	\$0.01
4	5/16	9/16	\$0.90	\$0.02
6	5/16	9/16	\$1.45	\$0.02
3	3/8	11/16	\$1.08	\$0.02
4	3/8	11/16	\$1.22	\$0.02
6	3/8	11/16	\$2.73	\$0.03



# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

# ELECTRICAL GOODS

## FLEXCO-LOK AND FLEXCO LAMP GUARDS



Fig. 4675      Fig. 4676      Fig. 4677

### FLEXCO-LOK KEY LOCKING

Closed with patent lock screws. One key with ten guards. For lamps 60 watts or less.

LIST EACH  
Mfrs. For  
1160 Standard Brass Sockets....\$0.60  
1162 1½ Inch Weatherproof....\$0.60

Fig. 4676

### FLEXCO NON-LOCKING

Closed with round head screws. For lamps 60 watts or less.

LIST EACH  
Mfrs. For  
2160 Standard Brass Sockets....\$0.50  
2162 1½ Inch Weatherproof....\$0.50

Fig. 4677

### FLEXCO REFLECTOR

Closed with round head screws. For lamps 60 watt or less. One half is reflector and one half is wire guard.

LIST EACH  
Mfrs. For  
4160 Standard Brass Sockets....\$0.70  
4162 1½ Inch Weatherproof....\$0.70

### DISCOUNTS

1 to 9.....42% OFF  
10 in Box, or More....56% OFF

## LOXON AND GRIPON LAMP GUARDS

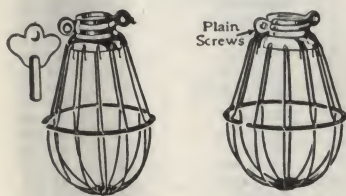


Fig. 6139      Fig. 6140

Loxon

Fig. 6139

Loxon

Locking lamp guards, closed bottom. Listed as standard by Underwriters' Laboratories. Protects the user from unauthorized removal of lamps and from lamp breakages. Made of heavily turned wire. One key with dozen guards.

### ★ NET PRICES

Lamp, Watts	1 to 11	1 to 6	6 to 11	Up Dozen
	EA.	DOZ.	DOZ.	DOZ.

**FITS BRASS SOCKETS**

50-60 \$0.35 \$3.20 \$2.65 \$2.00  
100 \$0.40 \$3.30 \$2.80 \$2.15

**FITS WATER PROOF SOCKETS**

50-60 \$0.35 \$3.20 \$2.65 \$2.00  
100 \$0.40 \$3.30 \$2.80 \$2.15

Fig. 6140

Gripion

Non-locking, with plain screws. Closed bottom. Listed as standard by the Underwriters' Laboratories. Use for protection from breakage.

### ★ NET PRICES

Lamp, Watts	1 to 11	1 to 6	6 to 11	Up Dozen
	EA.	DOZ.	DOZ.	DOZ.

**FITS BRASS SOCKETS**

50-60 \$0.25 \$2.30 \$2.10 \$1.80  
100-200 \$0.45 \$3.85 \$3.75 \$2.90

**FITS WATERPROOF SOCKETS**

50-60 \$0.25 \$2.30 \$2.10 \$1.80  
100-200 \$0.45 \$3.85 \$3.75 \$2.90

## DROP-LITE

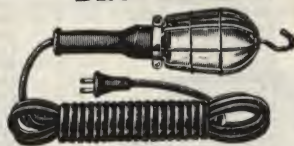


Fig. 6141

Rubber handle is made of an oil resisting compound. Brass shell socket. Cadmium plated guard. Half reflector. No. 18, 2 conductor, all rubber cord. .380 O. D. non-breakable rubber plug. Fits lamps up to 60 watt.

Cord Feet	1 to 11	12 or More
	★ NET EACH	★ NET EACH
20	\$1.25	\$1.08
25	\$1.40	\$1.20
30	\$1.54	\$1.32
40	\$1.82	\$1.56
50	\$2.10	\$1.80

## PORTABLE LAMP GUARDS

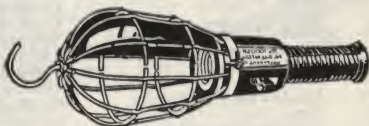


Fig. 6142

Rubber handle. Listed as standard by the Underwriters' Laboratories. No cord. Lamp size 40 to 100 Watts.

Reflector	Socket	1 to 11	12 to 23	24 or More
		★ NET EACH		
Without	Keyless	\$1.50	\$1.25	\$1.00
With	Keyless	\$1.60	\$1.35	\$1.00
Without	Lever	\$1.65	\$1.40	\$1.15
With	Lever	\$1.75	\$1.50	\$1.25

## PROTEX LAMP GUARD

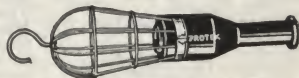


Fig. 6195

Can be used under damp conditions. Designed to meet safety requirements. Approved by the Underwriters' Laboratories. Handle and socket is made of high quality rubber compound and is shockproof and non-breakable.

### ★ NET EACH

Type	Watts	Reflector	With- out	25 Foot Cord
PGH	60	None	\$1.75	\$3.50
PGHR	60	Half Shade	\$2.25	\$4.00
PGHL	100	None	\$1.75	\$3.50
PGHRL	100	Half Shade	\$2.25	\$4.00
PGHXL	200	None	\$2.60	\$4.35

## VAPROTEX LAMP GUARD

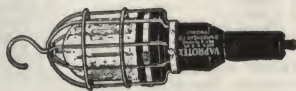


Fig. 6143

For illumination where gas, dust, and other explosives exist. Approved by Underwriters' Laboratories. Rubber handle. Heat resistive bakelite socket. The outer globe is made of heat resistive glass.

### WITHOUT CORD

60 Watt .....★ NET EACH, \$6.30  
100 Watt .....★ NET EACH, \$7.00

### WITH 25 FOOT TYREX CORD

60 Watt .....★ NET EACH, \$8.70  
100 Watt .....★ NET EACH, \$9.40

## PORTABLE REELITES



Fig. 3417C

Fig. 3417A

The handy light on a reel. Keeps the cords always out of the way, clean and uninked. Light is instantly available. 250 volt. 250 watt.

Reel units are black enameled. With base for attaching to 3¼ or 4 inch outlet box. Will take lamps up to 100 watt. Lamps are extra, see above.

3417A. 25 Feet of Cord. 7¼ inch diameter reel unit. Heavy wire guard. Half reflector. Key socket. ★ NET EACH, \$10.50

3417B. 25 Feet of Cord. 7¼ inch diameter reel unit. Loxon guard. Key socket. ★ NET EACH, \$9.45

3417C. 12 Feet of Cord. 5½ inch diameter reel unit. Brass shell key socket. ★ NET EACH, \$7.00

## PROTEX AUTOMATIC CORD WINDER

Fig. 6144

This winder keeps the light cord clean, without kinks, and out of the way when desired. It works like a window shade. With 40 feet of 55 Underwriters' approved all rubber cord.

### ★ NET EACH

Cord, No lamp .....\$16.25  
With Protex Lamp .....\$17.87  
With Vaprotex Lamps ..\$20.75

## VAPROTEX BUNGHOLE LAMP



Fig. 6145. For Explosives

A vaporproof lighting unit for inspecting gasoline, oil chemical and other drums used for explosive and flammable liquid. Made of non-sparking metal throughout. With heat-resisting outer globe. With special 15 watt, 115 volt mazda lamp. 1-1/2 inch outside diameter.

30 inch length ★ NET EACH, \$11.70  
12 inch length ★ NET EACH, \$9.00

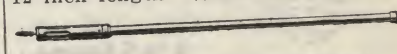


Fig. 6146. For Non-explosives

For non-explosive liquids. Without outer globe. With spear.  
30 inch length ★ NET EACH, \$7.20





# WESTINGHOUSE MAZDA OR JEWEL LAMPS

STANDARD LINE GENERAL AND SPECIAL LIGHTING SERVICE

PRICE LIST EFFECTIVE MAY 1, 1936

Watts	Volts	Bulb	Lighting Service	Base	Standard Package	LIST EACH
6	110-125	S14	Inside Frosted	General	Medium	120 \$0.15
10	115-125	S14	Inside Colored(1)	Decorative	Medium	120 \$0.20
15	6	A17	Inside Frosted	Wind Charger	Medium	120 \$0.35
15	110-125	A17	Inside Frosted	General	Medium	120 \$0.15
15	115-125	A17	Inside Colored(2)	Decorative	Medium	120 \$0.20
15	115-125	A17	Inside Colored(3)	Decorative	Medium	120 \$0.25
15	110-125	A17	Clear	General	Medium	120 \$0.20
25	6	A19	Inside Frosted	Wind Charger	Medium	120 \$0.35
25	110-125	A19	Inside Frosted	General	Medium	120 \$0.15
25	110-125	A19	Clear	General	Medium	120 \$0.20
25	110-125	A19	Daylight Blue Clear	General	Medium	120 \$0.30
25	110-125	T6-1/2	Clear(7)	Special	Intermediate	60 \$0.45
25	110-125	T10	Clear(7)	Special	Medium	60 \$0.25
25	220-250	A19	Inside Frosted	General	Medium	120 \$0.26
40	110-125	A19	Inside Frosted	General	Medium	120 \$0.15
40	110-125	A19	Clear	General	Medium	120 \$0.20
40	110-125	A19	Vibrex Clear(8)	Vibration	Medium	120 \$0.30
40	110-125	A19	Vibrex Inside Frosted(8)	Vibration	Medium	120 \$0.25
50	6	A21	Inside Frosted	Wind Charger	Medium	120 \$0.40
50	110-125	A21	Inside Frosted	General	Medium	120 \$0.15
50	110-125	A21	Clear	General	Medium	120 \$0.20
50	110-125	A21	Vibrex Inside Frosted(8)	Vibration	Medium	120 \$0.25
50	110-125	A21	Vibrex Clear(8)	Vibration	Medium	120 \$0.30
50	110-125	P19	Clear, Mill Type	Mill Service	Medium	120 \$0.25
50	220-250	A21	Inside Frosted	General	Medium	120 \$0.26
50	220-250	A21	Vibrex Inside Frosted(8)	Vibration	Medium	120 \$0.36
60	110-125	A21	Inside Frosted	General	Medium	120 \$0.15
60	110-125	A21	Clear	General	Medium	120 \$0.20
60	110-125	A21	Daylight Blue Clear	General	Medium	120 \$0.30
60	110-125	A21	Vibrex Inside Frosted(8)	Vibration	Medium	120 \$0.25
60	110-125	A21	Vibrex Clear(8)	Vibration	Medium	120 \$0.30
60	110-125	A21	Vibrex Da. Blue Clear(8)	Vibration	Medium	120 \$0.40
75	110-125	A21	Inside Frosted	General	Medium	60 \$0.20
75	110-125	A21	Clear	General	Medium	60 \$0.25
75	110-125	A21	Vibrex Inside Frosted(8)	Vibration	Medium	60 \$0.30
75	110-125	A21	Vibrex Clear(8)	Vibration	Medium	60 \$0.35
75	220-250	A21	Inside Frosted	General	Medium	60 \$0.35
75	220-250	A21	Clear	General	Medium	60 \$0.40
100	110-125	A23	Inside Frosted	General	Medium	60 \$0.20
100	110-125	A23	Clear	General	Medium	60 \$0.25
100	110-125	A23	Daylight Blue Clear	General	Medium	60 \$0.35
200	110-125	G30	Inside Frosted 3-Light(9)	Indirect	{Three-Contact Mogul}	24 \$0.80
100	110-125	A23	Vibrex Inside Frosted(8)	Vibration	Medium	60 \$0.30
100	110-125	A23	Vibrex Clear(8)	Vibration	Medium	60 \$0.35
100	110-125	A23	Vibrex Da. Blue Clear(8)	Vibration	Medium	60 \$0.45
100	220-250	A23	Inside Frosted	General	Medium	60 \$0.38
100	220-250	A23	Vibrex Inside Frosted(8)	Vibration	Medium	60 \$0.48
150	110-125	A25	Inside Frosted or Clear	General	Medium	60 \$0.25
150	110-125	A25	White Bowl	General	Medium	60 \$0.30
150	110-125	A25	Daylight Blue Clear	General	Medium	60 \$0.50
150	110-125	A25	Vibrex Inside Frosted(8)	Vibration	Medium	60 \$0.40
150	110-125	A25	Vibrex Clear(8)	Vibration	Medium	60 \$0.40
150	110-125	A25	Vibrex Da. Blue Clear(8)	Vibration	Medium	60 \$0.65
150	220-250	A25	Clear	General	Medium	60 \$0.65
150	220-250	A25	Inside Frosted	General	Medium	60 \$0.70
150	220-250	A25	Vibrex Clear(8)	Vibration	Medium	60 \$0.85
150	220-250	A25	Vibrex Inside Frosted(8)	Vibration	Medium	60 \$0.95
200	110-125	PS30	Clear	General	Medium	24 \$0.35
200	110-125	PS30	Inside Frosted or W.B.	General	Medium	24 \$0.40
200	110-125	PS30	Daylight Blue Clear	General	Medium	24 \$0.80
200	110-125	PS30	Vibrex Inside Frosted(8)	Vibration	Medium	24 \$0.70
200	110-125	PS30	Vibrex Clear(8)	Vibration	Medium	24 \$0.65
200	110-125	PS30	Vibrex Da. Blue Clear(8)	Vibration	Medium	24 \$1.00
200	220-250	PS30	Clear	General	Medium	24 \$0.85
200	220-250	PS30	Inside Frosted or W.B.	General	Medium	24 \$0.90
200	220-250	PS30	Vibrex Clear(8)	Vibration	Medium	24 \$1.05
200	220-250	PS30	Vibrex Inside Frosted(8)	Vibration	Medium	24 \$1.10
300	110-125	PS35	Clear	General	Med. or Mog.	24 \$0.75
300	110-125	PS35	Inside Frosted or W.B.	General	Med. or Mog.	24 \$0.80
300	110-125	PS35	Daylight Blue Clear	General	Med. or Mog.	24 \$1.20
300	110-125	PS35	Vibrex Inside Frosted(8)	Vibration	Med. or Mog.	24 \$1.10
300	110-125	PS35	Vibrex Clear(8)	Vibration	Med. or Mog.	24 \$1.05
300	220-250	PS35	Clear	General	Medium	24 \$1.35
300	220-250	PS35	Inside Frosted or W.B.	General	Medium	24 \$1.45
300	220-250	PS35	Clear	General	Mogul	24 \$1.25
300	220-250	PS35	Inside Frosted or W.B.	General	Mogul	24 \$1.35
500	110-125	PS40	Clear	General	Mogul	12 \$1.40
500	110-125	PS40	Inside Frosted or W.B.	General	Mogul	12 \$1.50
500	110-125	PS40	Daylight Blue Clear	General	Mogul	12 \$2.15
500	220-250	PS40	Clear	General	Mogul	12 \$2.15
500	220-250	PS40	Inside Frosted	General	Mogul	12 \$2.30
750	110-125	PS52	Clear	General	Mogul	6 \$3.75
1000	110-125	PS52	Clear	General	Mogul	6 \$4.00
1500	110-125	PS52	Clear	General	Mogul	6 \$5.75
1500	110-125	PS52	White Bowl	General	Mogul	6 \$5.95

(1) Red, blue, green and yellow regularly stocked. Also available in amber-orange, flametint, ivory, old rose and white.

(2) Available in amber-orange, flametint and yellow.

(3) Available in red, blue, green, ivory, old rose and white.

(7) For show case service.

(8) VIBREX—Specially constructed to withstand severe vibration and assure long burning life. Furnished only in the Jewel Line.

(9) For base down burning.

Street series, traffic, low voltage country, colored, and other lamps, not shown. prices on request.

Westinghouse and Jewel Lamps are MADE IN THE UNITED STATES.

## DISCOUNTS

1 to 5 Lamps.....	LIST NET
6 or More Lamps.....	LIST NET
Standard Packages, Any Quantity.....	15% OFF
Contract on Yearly Requirements.....	Write Us

**JEWEL**  
LIST NET  
**20% OFF**  
**38% OFF**  
Write Us



A



PS



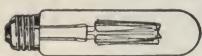
G



S



P



T



5/8 Inch  
Intermediate  
Base



1 Inch  
Medium  
Base



1-1/2 Inch  
Mogul  
Base



W. D.

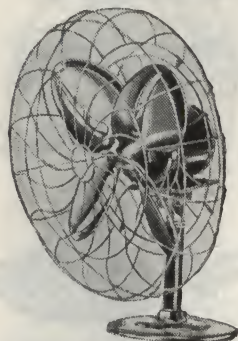
W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## DUAL-AIR POWER CIRCULATORS AND FANS

### DUAL-AIR POWER CIRCULATORS



**20 INCH DIAMETER PROPELLER Counter and Shelf model illustrated.**

Quiet, volume air fan for large rooms, stores, offices, etc. With double blade fan that has an increased penetration and air delivery, and is effective over 100 feet away. Allow one circulator for about 25 by 50 feet area and not over 15 foot ceiling. Motors are self cooled, rubber cushioned and totally enclosed. Black and chrome finish. Lower operating cost for same air volume.

Style No.	No.	Speeds	R.P.M.	110-115 Volt	LIST EACH
<b>Fig. 6147. CEILING MODEL</b>					
A	1	1140		A.C., 60	\$72.00
B	2	860-1140		A.C., 60	\$82.00
C	1	1140		D.C.	\$85.00
D	2	860-1140		D.C.	\$95.00

**Fig. 6148**

#### SHELF & COUNTER MODEL

A	1	1140	A.C., 60	\$72.00
B	2	860-1140	A.C., 60	\$82.00
C	1	1140	D.C.	\$85.00
D	2	860-1140	D.C.	\$95.00

**Fig. 6149. WALL BRACKET MODEL**

A	1	1140	A.C., 60	\$75.00
B	2	860-1140	A.C., 60	\$85.00
C	1	1140	D.C.	\$88.00
D	2	860-1140	D.C.	\$98.00

**Fig. 6150. SKY-BOY MODEL**

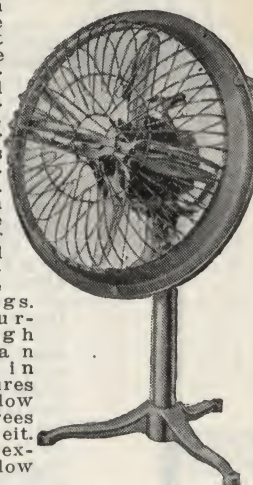
Adjustable 4-1/2 to 9 Feet High.

A	1	1140	A.C., 60	\$80.00
B	2	860-1140	A.C., 60	\$90.00
C	1	1140	D.C.	\$93.00
D	2	860-1140	D.C.	\$103.00

**DISCOUNT ..... 35% OFF**

### INDUSTRIAL DUAL-AIR POWER FANS

Made with a new type blade that cannot be out-performed. All cast aluminum fittings, motor supports and housing rings. Extension cords are rubber covered with non-breakable rubber plugs. Sturdy. Durable. High quality. Can be used in temperatures from 30 below to 200 degrees Fahrenheit. Costs are exceptionally low to operate.



**Illustration of LO-BOY Model SPECIFICATIONS**

Fan Diam. Inch	Speed R.P.M.	H.P.	Free Air, Cubic Ft. Minute
16	1140	1/20	1650
16	1725	1/10	2500
20	1140	1/10	2680
20	1725	1/4	4000
24	1140	1/8	4450
24	1725	1/2	6650

#### LIST EACH

**110-115 Volt A.C., 60 Cycle or 110-115 Volt D.C.**

16 Inch AC	16 Inch DC	20 Inch AC	20 Inch DC	24 Inch AC	24 Inch DC
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**Fig. 6151. HANG UP MODEL**

Clamps to either I-beam or pipe. \$79. \$92. \$93. \$111. \$109. \$135.

#### Fig. 6152

#### WALL BRACKET MODEL

\$71.	\$85.	\$86.	\$103.	\$101.	\$123.
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**Fig. 6153. LO-BOY MODEL**

30 inches high, 16 inch size. Handle on motor. Tilts up and down.

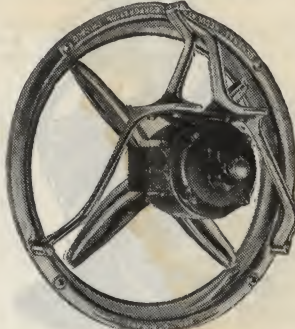
**Fig. 6154. HI-BOY MODEL**

5 feet high, 16 inch size. Tilt up and down.

\$75.	\$90.	\$90.	\$107.	\$105.	\$125.
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**DISCOUNT ..... 20% OFF**

### DUAL-AIR POWER EXHAUST FANS



Cannot be out performed. The air is drawn in from the back, there is NO tip front suction, whirlpooling outside air around the blade tips. Live active center keeps motor cool. Great air suction and penetration. All solid cast aluminum rust and corrosion proof. Fully enclosed motors. Double blade sets up a real vacuum at fan slot in blades. Low operating cost.

**Fig. 6159**

#### NARROW DOUBLE PROPELLER FAN

For Industrial and general use.

Fan Diam. Inch	Speed R.P.M.	H.P.	Free Air, Cubic Ft. Minute
16	1140	1/20	1650
16	1725	1/10	2500
20	1140	1/10	2680
20	1725	1/4	4000
24	1140	1/8	4450
24	1725	1/2	6650
30	1140	1/2	7800
30	1725	1-1/2	11860

#### LIST EACH

16 Inch	20 Inch	24 Inch	30 Inch
---------	---------	---------	---------

**A.C. 110-115 Volt, 60 Cycle**

\$60.00	\$73.00	\$90.00	\$185.00
---------	---------	---------	----------

**D.C. 110-115 Volts**

\$72.00	\$84.00	\$107.00	\$210.00
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**DISCOUNT ..... 20% OFF**

**Fig. 6160**

#### WIDE DOUBLE PROPELLER FAN

Free Air, Cubic Ft. Minute

Fan Diam. Inch	Speed R.P.M.	H.P.	Free Air, Cubic Ft. Minute
16	1140	1/8	2400
16	1725	1/4	3100
20	1140	1/6	4500
20	860	1/10	3400
24	1140	1/2	6600
24	860	1/4	5800
30	1140	1	11000
30	860	1/2	8000

#### LIST EACH

**A.C. 110-115 Volt, 60 Cycle**

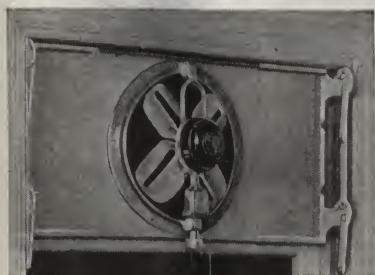
\$65.00	\$75.00	\$138.00	\$280.00
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**D.C. 110-115 Volt**

\$78.00	\$86.00	\$159.00	\$305.00
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**DISCOUNT ..... 20% OFF**

### DUAL-AIR POWER VENTILATING FANS



**FOR OFFICES, KITCHENS, ETC.**

Double duty 10 inch diameter fans, it takes all of its air from in back of its blades which gives it a powerful continuous suction. Costs about 1 cent for each 3-1/2 hours to operate. Polished aluminum fittings. Easy to keep clean. Steel panels or cabinet areterne plated to resist rust, etc., and finished in pearl gray enamel baked on, 110 volt only.

**6156 WINDOW FAN.** With adjustable window panel, 4 sizes, all 13 inches high: SPECIFY WIDTH OF WINDOW: 17 to 21, 21 to 26, 26 to 36, or 36 to 54 inches. Full sash travel of upper and lower windows.

Model	For Exhaust	For Cooling	A.C. 60 Cy.	D.C. LIST
Standard	Yes	No	\$34.50	\$39.50
Swivel	Yes	Yes	\$48.75	\$53.75

**6157 WALL CABINET FAN.** Built-in wall type, adjustable to any wall thickness. Opening of the steel door opens outside louvers, and fan automatically starts. Wall opening required is 16-1/8 inches, use 1-1/2 inch wood liner. Cabinet is 13-1/8 by 13-1/8 inches.

Model	For Exhaust	For Cooling	A.C. 60 Cy.	D.C. LIST
Adapter	Yes	No	\$17.25	\$22.25
Swivel	Yes	Yes	\$22.50	\$27.50

Aluminum 10 Inch Shutter ..... \$8.00

**DISCOUNT ..... 20% OFF**

### AUTOMATIC ALUMINUM SHUTTERS

**Fig. 6161**

#### FOR EXHAUST FANS

Shutter leaves are all hinged together so all open at the same time and all close at the same time.

Fan Diam. Inches	Shutter Width Inches	Shutter Height Inches	Shutter Depth Inches	LIST EACH
16	21	21	1-1/2	\$12.00
20	25	25	2	\$17.00
24	29	29	2	\$22.00
30	35	35	2-1/2	\$30.00

**DISCOUNT ..... 20% OFF**



W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## DELUXE JACK FROST ELECTRIC FAN BALL BEARING

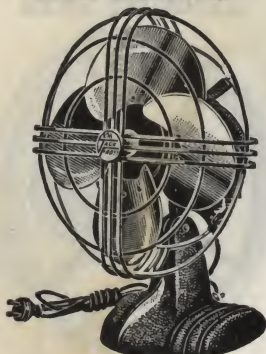


Fig. 6219

Perfectly balanced over-lapping blades of lacquered polished aluminum, pitched and dished for maximum air dispersment. Quiet operating. Stationary setting or two different degrees of oscillation. Sealed lubricated ball bearings. Speedy, induction type motor with no radio interference. Two speeds, switch on base. Streamlined black frosted housing and base with chrome airflow trim. Rubber feet. Heavy, polished, plated wire safety guard. Rubber cord and plug. Air delivery 900 cubic feet per minute. Underwriters' approved. AC only. 65 Watts. 110-120 Volts. 50-60 Cycles.

### 12 INCH OSCILLATOR

1 or 2.....★ NET EACH, \$16.25  
3 or More.....★ NET EACH, \$14.70

## JACK FROST OSCILLATING ELECTRIC FANS

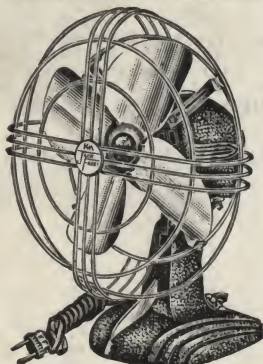


Fig. 6220

Full-shaped blades, dished and pitched for maximum air dispersment, polished chrome. High speed, powerful, induction-type motor. No radio interference. Self-aligning and self-lubricating bearings. Modern streamlined housing frosted black with dashes of chrome. Switch on base. Heavy wire safety guard. Rubber cord and plug. AC only. 65 Watts. Air delivery 900 cubic feet each minute. 110-120 Volts. 50-60 Cycles.

### 12 INCH—2 SPEED

1 or 2.....★ NET EACH, \$13.45  
3 or More.....★ NET EACH, \$12.15

### 10 INCH—2 SPEED

1 or 2.....★ NET EACH, \$11.85  
3 or More.....★ NET EACH, \$10.75

### 10 INCH—SINGLE SPEED

1 or 2.....★ NET EACH, \$7.15  
3 or More.....★ NET EACH, \$6.50

## JACK FROST PEDESTAL ELECTRIC FANS



Fig. 6221

The adjustable pedestal makes it possible to have the fan in the exact desired location. Heavy stable base. Pedestal and base finished in black frosted enamel combined with chrome. New exclusive propeller type blades, highly polished aluminum, designed to move a larger volume of air. Powerful, high speed induction motor, no radio interference. Self-aligning and self-lubricating ball seated bearings. Streamline housing of chrome and black. Switch on pedestal. Long cord extends from bottom of base. AC only. 140 Watts. Air delivery 1600 cubic feet per minute. 110-120 Volts. 50-60 Cycles.

### 16 INCH GIANT STRAIGHT

Two speeds. Adjustable 4 to 6 feet.

1 or 2.....★ NET EACH, \$21.70  
3 or More.....★ NET EACH, \$19.70

### 12 INCH OSCILLATING

Single speed. Adjustable 3-1/2 to 5 feet.

1 or 2.....★ NET EACH, \$18.00  
3 or More.....★ NET EACH, \$16.45

### 10 INCH OSCILLATING

Koldair. Single speed. Adjustable 3-1/2 to 5 feet.

1 or 2.....★ NET EACH, \$9.50  
3 or More.....★ NET EACH, \$8.62

## Adaptair Adjustable Blade Ceiling Fans 5 YEAR GUARANTEE

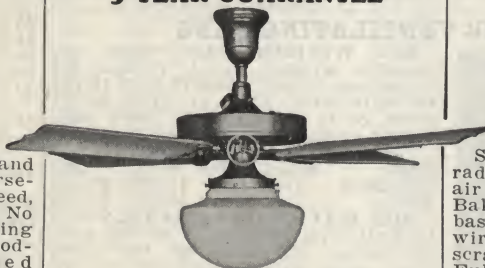


Fig. 6224

52 inch basswood blades adjustable to any desired angle, maximum of 15 degrees, the air can be circulated either up or down, simply turn a lever. Black oxidized plate. A.C. 110 volts. 60 cycles. 3 speeds. Shipping weights, 57 and 65 pounds. Plain. Without glassware Holder.

NET EACH, \$35.00

With 4 or 6 inch glassware Holder and drilled for Levellier switch to control light and without glassware.

NET EACH, \$35.00

## KOLDAIR FANS

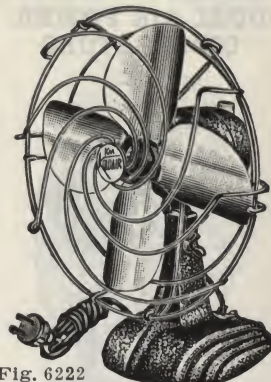


Fig. 6222

With chrome plated blades. Fast induction type motor. No radio interference. Chrome plated whirl type guard. Self-aligning and self-lubricating bearings. New streamline stable base finished in frosted black baked enamel. Felt feet. Long rubber cord with pull plug. Listed as standard by the Underwriters' Laboratories. AC only.

### 8 INCH STRAIGHT

1 or 2.....★ NET EACH, \$2.20  
3 or More.....★ NET EACH, \$2.00

### 8 INCH OSCILLATOR

Instant adjustment oscillating to stationary.

1 or 2.....★ NET EACH, \$4.60  
3 or More.....★ NET EACH, \$4.15

### 10 INCH OSCILLATOR

Instant adjustment oscillating to stationary.

1 or 2.....★ NET EACH, \$5.90  
3 or More.....★ NET EACH, \$5.35

## KWIK KOOL FANS

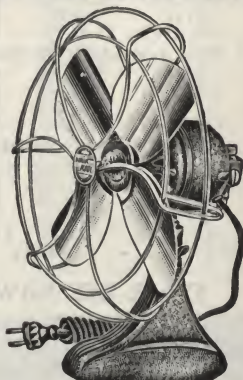


Fig. 6223

Speedy induction type motor, no radio interference. Fast, maximum air delivery. Chrome plated blades. Baked enamel light green finish on base and housing. Plated double wire safety guard. Felt feet prevent scratching. Rubber cord and plug. Full Underwriters' approved. AC only. Air delivery 275 cubic feet per minute. 32 watts. 110-120 Volts. 50-60 Cycles.

### 8 INCH STRAIGHT

1 or 2.....★ NET EACH, \$1.65  
3 or More.....★ NET EACH, \$1.50

### 8 INCH OSCILLATOR

Instant adjustment, oscillating to stationary.

1 or 2.....★ NET EACH, \$3.30  
3 or More.....★ NET EACH, \$3.00

### 10 INCH OSCILLATOR

Instant adjustment, oscillating to stationary.

1 or 2.....★ NET EACH, \$4.65  
3 or More.....★ NET EACH, \$4.20



# W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

# ELECTRICAL GOODS

## CENTURY ELECTRIC MOTORS

### CENTURY SPLIT PHASE ELECTRIC MOTORS

Century Type SP Split Phase Motors are adapted to drive domestic and industrial apparatus that does not require a static or initial starting torque appreciably in excess of full-load torque—such as oil burners, unit heaters, air washers, blowers, fans, dish washers, factory sewing machines, washing, ironing machines, small tools, etc.

Horse Power		Voltage	★NET Standard Motor Only	★NET With Cushion Base	★NET EACH	PULLEY Diameter Inch	Face Inch	Bore Inch
R.P.M. and Cycles								
Long Annual Service Characteristics. Suitable for oil burner and similar long annual service applications.								
1/8	1750	110-60	\$10.40	\$10.70	\$0.50	1-3/4	3/8	1/2
1/6	1750	110-60	\$10.40	\$10.70	\$0.50	1-3/4	3/8	1/2
1/6	1150	110-60	\$15.75	\$16.95	\$0.90	2-1/2	2-1/2	5/8
1/4	1750	110-60	\$11.50	\$11.80	\$0.90	2-1/2	2-1/2	5/8
1/4	1750	220-60	\$12.50	\$12.80	\$0.90	2-1/2	2-1/2	5/8
Short Annual Service Characteristics. For washing machine and similar loads.								
1/6	1750	110-60	\$7.85	.....	\$0.50	1-3/4	3/8	1/2
1/4	1750	110-60	\$8.10	.....	\$0.50	1-3/4	3/8	1/2
1/4	1750	220-60	\$9.10	.....	\$0.50	1-3/4	3/8	1/2
1/3	1750	110-60	\$11.60	.....	\$0.90	2-1/2	2-1/2	5/8



Fig. 6166

### CENTURY SINGLE PHASE MOTORS— Repulsion Start Induction

Type RS—Long Annual Service Characteristics—Brush Lifting

Type BR—Short Annual Service Characteristics—Brush Riding



Fig. 6167

For constant speed motor application under all kinds of service conditions. Due to high starting torque they develop the low current required to start them when connected directly across the line. They are particularly adapted to the operation of apparatus that is hard to start or must be automatically controlled, for illustration, plunger pumps, compressors, oil burners, refrigerating machines, etc. **SPECIFY VOLTAGE.**

Horse Power	R.P.M.	★NET Standard Motor Only	★NET Base	★NET EACH	Pulley Diameter Inch	Face Inch	Bore Inch
TYPE RS. 60 cycles. Specify 110 or 220 volts. Long annual service characteristics. Suitable for all general service applications.							
1/6	1750	\$12.70	.....	\$0.50	1-3/4	3/8 Grv.	1/2
1/6	1165	\$23.15	.....	\$0.90	2-1/2	2-1/2	5/8
1/6	1165	\$14.20	.....	\$0.90	2-1/2	2-1/2	5/8
1/4	1750	\$28.00	.....	\$0.90	2-1/2	2-1/2	5/8
1/4	1165	\$19.30	.....	\$0.90	2-1/2	2-1/2	5/8
1/3	1750	\$33.00	.....	\$2.50	3	2-1/2	3/4
1/3	1165	\$26.00	.....	\$2.50	3	2-1/2	3/4
1/2	1750	\$42.00	.....	\$2.50	3	2-1/2	3/4
1/2	1165	\$34.00	.....	\$2.50	3	2-1/2	3/4
3/4	1750	\$57.00	\$6.00	\$2.00	3	3	3/4
3/4	1165	\$41.00	\$6.00	\$2.00	3	3	3/4
1	1750	\$73.00	\$6.00	\$2.00	4	3-1/2	1
1	1165	\$54.00	\$6.00	\$2.00	4	3-1/2	1
1-1/2	1750	\$95.00	\$6.00	\$2.00	4	3-1/2	1
1-1/2	1165	\$71.00	\$6.00	\$2.00	4	3-1/2	1
2	1750	\$139.00	\$6.00	\$2.00	4-1/2	4-1/2	1-1/8
2	1165	\$91.00	\$6.00	\$2.00	4	3-1/2	1
3	1750	\$166.00	\$6.00	\$2.00	4-1/2	4-1/2	1-1/8
3	1165	\$143.00	\$6.00	\$2.00	4-1/2	4-1/2	1-1/8

TYPE BR. 60 cycles. Specify 110 or 220 volts. Short annual service characteristics. Suitable for pump service and similar loads.

Horse Power	R.P.M.	★NET Standard Motor Only	★NET Base	★NET EACH	Pulley Diameter Inch	Face Inch	Bore Inch
1/6	1750	\$12.70	.....	\$0.50	1-3/4	3/8 Grv.	1/2
1/4	1750	\$14.20	.....	\$0.90	2-1/2	2-1/2	5/8
1/3	1750	\$19.30	.....	\$0.90	2-1/2	2-1/2	5/8
1/2	1750	\$26.00	.....	\$2.50	3	2-1/2	3/4

### CENTURY SQUIRREL CAGE INDUCTION ELECTRIC MOTORS

1/4 to 600 Horse Power

Prices on Request for Larger Sizes



Fig. 6168

For dependable and uninterrupted operation even under severe and frequently unfavorable conditions. 3 and 2 Phase Motors. Well-balanced electrical characteristics. The best materials obtainable are used. Liberal proportions. Accurate workmanship. Sturdy construction. Maximum mechanical protection to the motor. Completely balanced design. They are widely used in all types of general purpose, heavy duty applications. **SPECIFY VOLTAGE:** 110, 220, 440 or 550. Sleeve Bearing, 40° Centigrade. 60 Cycles.

**TYPE SC—General Purpose Normal Starting Current—Normal Torque Motors.**

H.P.	R.P.M.	Voltage	★NET EACH Bare Motor Only Type SC	Base	★NET EACH	Pulley Diameter Face and Bore
1/2	1710	110 to 220	\$30.00	.....	\$2.50	3 x 2 1/2 x 3/4
1/2	1135	110 to 550	\$38.00	.....	\$2.50	3 x 2 1/2 x 3/4
3/4	1710	110 to 550	\$35.00	.....	\$2.50	3 x 2 1/2 x 3/4
1	1750	110 to 550	\$37.00	\$6.00	\$2.00	3 x 3 x 3/4
1	1150	110 to 550	\$44.00	\$6.00	\$2.00	4 x 3 1/2 x 1
1-1/2	1750	110 to 550	\$44.00	\$6.00	\$2.00	4 x 3 1/2 x 1
1-1/2	1150	110 to 550	\$52.00	\$6.00	\$2.00	4 x 3 1/2 x 1
2	1750	110 to 550	\$52.00	\$6.00	\$2.00	4 x 3 1/2 x 1
2	1150	110 to 550	\$58.00	\$6.00	\$2.00	4 x 3 1/2 x 1
3	1750	110 to 550	\$58.00	\$6.00	\$2.00	4 x 3 1/2 x 1
3	1150	110 to 550	\$71.00	\$6.00	\$2.00	4 x 4 1/2 x 1 1/4
5	1750	110 to 550	\$71.00	\$6.00	\$2.00	4 x 4 1/2 x 1 1/4
5	1150	110 to 550	\$92.00	\$10.00	\$4.00	5 x 4 1/2 x 1 1/4
7-1/2	1750	110 to 550	\$92.00	\$10.00	\$4.00	5 x 4 1/2 x 1 1/4
7-1/2	1150	110 to 550	\$117.00	\$13.00	\$4.00	6 x 5 1/2 x 1 1/2
10	1750	110 to 550	\$117.00	\$13.00	\$4.00	6 x 4 1/2 x 1 1/2
10	1160	110 to 550	\$139.00	\$13.00	\$5.00	8 x 6 3/4 x 1 1/2



W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## EVEREADY "B" BATTERIES FOR RADIO



Fig. NC386

### Super Layerbilt 45 Volt—Large

Lasts from 35 to 50 per cent longer than other "B" batteries of equal size. Made of flat layers of current-producing material  $8\frac{3}{16}$  by  $4\frac{1}{16}$  inches;  $7\frac{1}{16}$  inches high. Weight,  $14\frac{1}{16}$  pounds.

1 to 5 .....★ NET EACH, \$1.86

6 in package ..★ NET EACH, \$1.69

Fig. NC385

### Super Layerbilt 45 Volt—Medium

For use on practically all sets using up to 5 tubes using 90 volts or over, with or without a "C" battery. Gives long life.  $8\frac{3}{16}$  by  $3\frac{1}{4}$  inches. Height,  $7\frac{1}{16}$  inches. Weight,  $9\frac{1}{16}$  pounds.

1 to 5 .....★ NET EACH, \$1.44

6 in package ..★ NET EACH, \$1.31

Fig. NC770

### 45 Volt Large Size

Cylindrical cell construction. 7-31/32 inches long. 4-5/16 inches wide. 7-3/16 inches high. Weighs 13 pounds.

1 to 5 .....★ NET EACH, \$1.32

6 in package ..★ NET EACH, \$1.20

Fig. NC772

### 45 Volt Medium Size

Cylindrical cell construction. 7-15/16 inches long. 3-1/32 inches wide. 7-3/16 inches high. Weighs 9 pounds.

1 to 5 .....★ NET EACH, \$0.96

6 in package ..★ NET EACH, \$0.87

## EVEREADY DRY CELL "A" RADIO BATTERY



Fig. 7111

1½ volt cells. Give long service. Can be connected in various combinations to meet the requirements of WD-11, UV-199 and all other dry cell radio tubes. Use this cell in units of 4 for each UV201A tube.

Std. Package of 25  
★ NET EACH, \$0.31

1 to 24  
★ NET EACH, \$0.34

## EVEREADY 4½ VOLT "C" RADIO BATTERY



Fig. NC771

3 Spring clip connectors give 1½, 3, or 4½ volts. 4 by 1½ by 3 inches.

1 to 4 .....★ NET EACH, \$0.27

5 in package ..★ NET EACH, \$0.245

## EVEREADY COLUMBIA HOT SHOT BATTERIES

Fig. 1461. Rectangular  
Fig. 1462. Square

6 volts. For all purposes requiring four or more dry cells in series. For tractors, motor boats, gas engines, blasting, fire alarms, burglar alarms, gongs, bells, signals, small lights, etc. Steel case. 6 in standard package weighing approximately 60 pounds.

Fig. 1461. 10½ inches long. 2½ inches wide. 7½ inches high.

1 to 5 .....★ NET EACH, \$1.41

6 in package ..★ NET EACH, \$1.28

Fig. 1462. 5½ inches long. 5½ inches wide. 7½ inches high.

1 to 5 .....★ NET EACH, \$1.41

6 in package ..★ NET EACH, \$1.28

## EVEREADY COLUMBIA IGNITOR DRY CELLS



Fig. 1980D

1½ Volts. Has long life. Exceptional quality. Quick recuperation. For heavy duty service. 6 inches high by 2½ inch diameter. 25 in standard package weighing 57 pounds.

1 to 40 .....★ NET EACH, \$0.34

50 in package ..★ NET EACH, \$0.31

## EVEREADY GENERAL PURPOSE DRY CELL

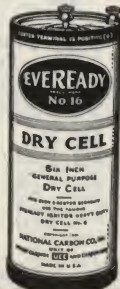


Fig. 6196. Mfrs. 16

A low-price general utility dry cell. 1-1/2 volts. 2-5/8 inch diameter. 6-5/8 inches high overall. Standard package of 25 weighs approximately 53 pounds.

1 to 24 .....★ NET EACH, \$0.24

25 in Package ★ NET EACH, \$0.21½

## BURGESS TWIN-SIX ELECTRIC LANTERN



Fig. 5292. Mfrs. TW2

Focusing type, will throw up to 1200 foot beam. Switch on handle. Unbreakable convex lens. Parabolic reflector. Rubber collar seals lens to 24 gauge steel case keeping out moisture or dust. Very light in weight. Spare bulb is furnished and is held in cover. Silver lacquer finish. 1-3/4 pounds. Battery is extra.

★ NET EACH, \$1.51

Fig. 5293. Mfrs. 4F2H

Twin-six utility battery for above lantern. 3 volt. Equivalent to 2—No. 6 dry cells.

15 in package ..★ NET EACH, \$0.47

1 to 14 .....★ NET EACH, \$0.52

## EVEREADY FLASHLIGHT BATTERIES



Fig. 6169

Metal seal top protects against leakage, bulging, and breakage. Each battery is dated, you know they're fresh. Rugged zinc can that is uniform in thickness. Protecting tip insures positive contact. Special jacket prevents short circuits. Made with a special patented mix combined with construction insures long life.

Mfrs. No.	Type	Unit Package	Broken Package	Unbroken Package
			★ NET EACH	★ NET EACH
915	Pen	12	\$0.05	\$0.03-1/4
935	Baby	12	\$0.10	\$0.06-1/2
950	Std.	48	\$0.10	\$0.06-1/2

## BATTERY CONNECTIONS



Common, Fig. No. 2071

1 to 99 .....★ NET DOZEN, \$0.25

Lots of 100 .....★ NET 100, \$2.00



W. D. **A** **ELECTRICAL GOODS** **A** W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

## EVEREADY FLASHLIGHTS

### EVEREADY 'LEADER' FLASHLIGHTS



Fig. 6172

2 cell, uses 2 No. 950 Eveready batteries, (extra). Non-focusing. Completely nickel plated. 6-3/4x1-1/2 inch. Bulls-eye lens. Ring hanger. Retail, \$0.59.  
Mfrs. 250.....★ **NET EACH, \$0.37**

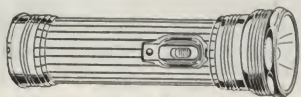


Fig. 6173

2 cell, uses 2 No. 950 Eveready batteries, (extra). Focusing, range of 350 feet. 6-1/8 by 1-1/2 inches. Candlelight. Ring hanger. Retail, \$0.59.  
Mfrs. 251.....★ **NET EACH, \$0.40**



Fig. 6174

3 cell, uses 3 No. 950 Eveready batteries, (extra). Focusing, effective range 350 feet. 9x1-1/2 inches. Candlelight feature. Ring hanger. Bulb shock absorber. Retail, \$0.79.  
Mfrs. 351.....★ **NET EACH, \$0.53**

Fig. 6175

**DISPLAY CARD.** 2 No. 250, 5 No. 251, 2 No. 351. Card is lithographed in brilliant colors and displays 3 flashlights. Less batteries. Retail, \$5.63.  
Mfrs. 19.....★ **NET CARD, \$3.80**

### EVEREADY 400 FOOT FOCUSING FLASHLIGHT

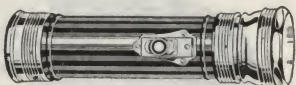


Fig. 6176

Focusing, 400 foot range. Chromium fittings. Candle light. Ring hanger. Lock switch. 7 by 1-1/2 inches. Uses 2 No. 950 Eveready batteries, (extra).

Mfrs.	Finish	Retail	★ NET EACH
2671	Black	\$0.99	\$0.65
2673	Chromium	\$1.05	\$0.68
<b>DISPLAY CARD OF 6</b>			
71	Black	\$5.94	\$3.90

### EVEREADY STANDARD FLASHLIGHT



Fig. 6177

2 cell tubular, uses 2 No. 950 Eveready batteries, (extra). Black finish, chromium fittings. 6-3/4x1-1/2 inches. Ring hanger. Retail, \$0.75.  
Mfrs. 2604.....★ **NET EACH, \$0.49**

### EVEREADY INDUSTRIAL FOCUSING FLASHLIGHT



Fig. 6178

2 cell, uses 2 No. 950 Eveready batteries, (extra). Head focusing range, 400 feet. Lamp shock absorber. Double thick lens. Polished silver plated reflector. Switch replacement without tools. 6-5/8 by 1-5/8 inches.  
Mfrs. 3251.....★ **NET EACH, \$1.23**  
Mfrs. 3351, 3 Cell.....★ **NET, \$1.50**

### EVEREADY PEN LIGHT



Fig. 6179

Bulls-eye lens lamp throws a brilliant beam of concentrated light when the hood is in place. When hood is removed, side rays give a broader distribution of illumination. A sliding movement of the clip turns light ON or OFF. 5-1/8 by 5/8 inch. Finished in chromium. Less batteries. Use 2 No. 915 batteries. Retail, \$0.49.  
Mfrs. 210.....★ **NET EACH, \$0.32**

Fig. 6180

**DISPLAY CARD OF 8.** Less batteries.  
Mfrs. 21.....★ **NET CARD, \$2.56**

### EVEREADY MASTERLIGHT FLASHLIGHT

The light of a new age. Pull the entire head forward for a reading light. For a diffused candlelight a sleeve is moved over the lamp. The batteries (extra) are loaded like a rifle. Ring hanger. Beautifully finished in lasting chromium and black.



Fig. 6185

2 cells, uses 2 No. 950 Eveready batteries, (extra). Focusing, 400 foot spotlight beam and diffused illumination. Retail, \$1.75.  
Mfrs. 2253.....★ **NET EACH, \$1.33**

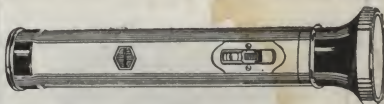


Fig. 6186

3 cells, uses 3 No. 950 Eveready batteries, (extra). Focusing, 700 foot spotlight beam, and diffused illumination. Retail, \$2.15.  
Mfrs. 2354.....★ **NET EACH, \$1.59**

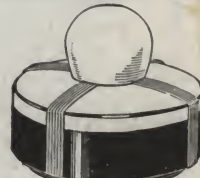


Fig. 6187

**TABLE MODEL.** 2 lights in one. Can be used as a night lamp with the glass ball illuminated or as a powerful 400 foot beam of light. Uses 2 No. 935 Eveready batteries, (extra). The inside of the glass ball is treated with a luminous material so the light can be located in the dark. Retail, \$2.30.  
Mfrs. 2238.....★ **NET EACH, \$1.14**

### EVEREADY MAZDA FLASHLIGHT LAMPS

Fig. 6183. ASSORTMENT. Contains 50 lamps as follows: 30 No. 1161, 2.5 volt; 15 No. 1162, 3.8 volt; 5 No. 1165, 2.3 volt. Retail, \$4.50.

Mfrs. 1934.....★ **NET EACH, \$2.70**  
Fig. 6184. Individual lamps. 10 in box. Specify No.

Mfrs. No.	Voltage	For Cells	LIST EACH	★ NET EACH
1152	2.2	2 Pen	\$0.07	\$0.05
1161	2.5	2 Std.	\$0.09	\$0.06
1162	3.8	3 Std.	\$0.09	\$0.06
1163	6.2	5 Std.	\$0.11	\$0.07
1180	2.2	2 Baby	\$0.09	\$0.06



### EVEREADY SEARCHLIGHT FLASHLIGHTS

Sturdily built entirely of brass and nickel plated. With ring hanger, bulb shock absorber, candlelight, and reliable switch.

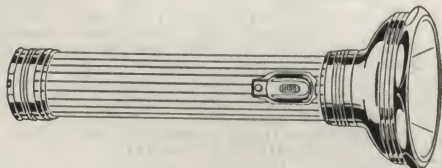


Fig. 6181. 3 cell, uses 3 No. 950 batteries, (extra). Focusing, effective range of 700 feet. 9 by 1-1/2 inches. Retail, \$0.99. Mfrs. 352.....★ **NET EACH, \$0.66**

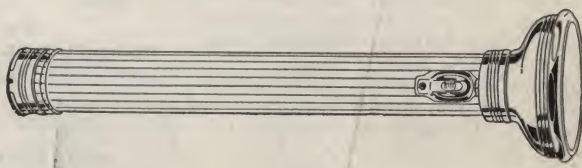


Fig. 6182. 5 cell, uses 5 No. 520 Eveready batteries, (extra). Focusing, effective beam of 2100 feet. 14 by 1-1/2 inches. Retail, \$1.25. Mfrs. 552.....★ **NET EACH, \$0.84**



W. D.

W. D. ALLEN MANUFACTURING COMPANY, CHICAGO

W. D.

# A ELECTRICAL GOODS A

## MAKE-AND-BREAK COILS STEEL CASE



Fig. 3057S  
Model 15  
With Switch

For stationary and marine (make and break) gas engines. Produces a hot, flaming arc under compression with a minimum current consumption. Black enameled steel case, immersed in a special moisture-proof insulating compound. 2 1/4 by 2 1/4 by 6 inches. Weight, 3 pounds.

With switch ..... ★ NET EACH, \$1.25

## GAS ENGINE COILS BOX TYPE



Fig. 51J. Single Cylinder

Trouble-proof. Guaranteed to give service under the most adverse operating conditions. Economical in battery consumption. Produces a hot, intensive spark. Cannot be adjusted to stop the engine from working; nor can it be adjusted to consume an excessive amount of battery current. Best grade tungsten points. Oak case, sealed in a water-proof compound.

★ NET EACH, \$2.65

## TWO-IN-ONE TAPE



Fig. 6106

A combination of unvulcanized rubber insulation with a ply of woven cotton fabric and serves the purpose of both splicing compound and friction tape. Requires only ONE WRAP. Resists moisture. For all ordinary voltage installations. .028 inch thick. 3/4 inch wide. 11 yards to the roll. Tested and listed by Underwriters' Laboratories.

### HALF POUND ROLL

1 Roll ..... ★ NET ROLL, \$0.50  
2 or More Rolls ★ NET ROLL, \$0.35

## FRICTION TAPE



Fig. 4679

**Gold Seal.** Commercial grade. Non-raveling. Lasting adhesive quality. Guaranteed footage. Strong. Tacky. Free from pinholes. Has high insulating qualities.

### ★ NET POUND

No. & Oz.	100 Pounds or More	50 to 99 Pounds	1 to 49 Pounds
-----------	--------------------	-----------------	----------------

### CELOPHANE WRAP. (No Box)

8	\$0.33-1/2	\$0.34	\$0.36
4	\$0.34	\$0.35	\$0.37
2	\$0.40	\$0.41	\$0.43
1	\$0.38	\$0.39	\$0.47

### IN BOX. CELOPHANE WRAP

8	\$0.34-1/2	\$0.35-1/2	\$0.37
4	\$0.35	\$0.36	\$0.38
2	\$0.42	\$0.43	\$0.45
1	\$0.45	\$0.46	\$0.48

### COUNTER DISPLAY & BOX (2 Pounds)

2	\$0.44	\$0.45	\$0.47
1	\$0.47	\$0.48	\$0.50

Fig. 4680

**Diamond Seal.** Meets American Society Testing Materials Specifications. No. 8, 8 ounces net weight, is 8 1/2 feet.

No. & Oz.	100 Pounds or More	50 to 99 Pounds	1 to 49 Pounds
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### FOIL WRAP (No Box)

8	\$0.39	\$0.40	\$0.42
---	--------	--------	--------

### IN BOX. FOIL WRAP

8	\$0.40	\$0.41	\$0.43
---	--------	--------	--------

## SPLICING COMPOUND (RUBBER TAPE)

Fig. 4681

**Gold Seal.** Commercial grade. A high quality rubber insulating tape which fuses instantly and becomes one solid mass, thereby assuring a perfect splice and complete protection.

No. & Oz.	100 Pounds or More	50 to 99 Pounds	1 to 49 Pounds
-----------	--------------------	-----------------	----------------

### CELOPHANE WRAP. (No Box)

8	\$0.39	\$0.40	\$0.42
4	\$0.41	\$0.42	\$0.44

### IN BOX. CELOPHANE WRAP

8	\$0.40	\$0.41	\$0.43
4	\$0.42	\$0.43	\$0.45

Fig. 4682

**Diamond Seal.** Meets American Society Testing Materials Specifications.

No. & Oz.	100 Pounds or More	50 to 99 Pounds	1 to 49 Pounds
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### FOIL WRAP. (No Box)

8	\$0.49	\$0.50	\$0.52
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### IN BOX. FOIL WRAP

8	\$0.50	\$0.51	\$0.53
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## CLEMENTS-CADILLAC ELECTRIC BLOWERS

They blow, suction clean, and spray. A large volume of clean, dry air is delivered at a high velocity, yet very low pressure. Costs only a few cents an hour to operate. Universal Motor, A.C. or D.C. Sealed bolt type bearings. Rubber nozzle. 20 feet rubber covered service cord. Polished aluminum frame and housing.



Fig. 6188

**HEAVY DUTY SERVICE, MODEL G.** 450 Watt Universal Motor. Weight, 9-1/2 pounds. Specify voltage, 100 to 275.

★ NET EACH, \$65.00

Fig. 6189

**GENERAL DUTY SERVICE, MODEL F.** 330 Watt Universal Motor. Weight, 7-1/2 pounds. Specify voltage, 32 to 275.

★ NET EACH, \$40.50

Fig. 6190

**LIGHT DUTY SERVICE, MODEL AY.** 260 Watt Universal Motor. Weight, 7 pounds. Specify voltage, 32 to 275.

★ NET EACH, \$30.50

Fig. 6191

**ATTACHMENT ASSORTMENT.** Dust bag. 4 feet of hose. Hose connection. Furniture nozzle. Nipple to attach nozzle to hose. Flat cleaning tool. Detachable bristle brush. Carrying belt.

★ NET SET, \$10.00

## TORNADO INDUSTRIAL VACUUM CLEANER

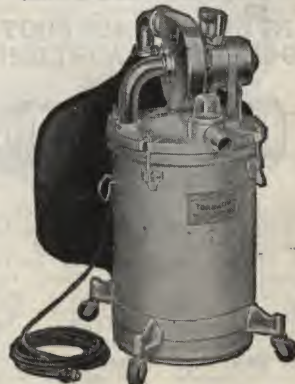


Fig. 5329. Model 112

Reduces your cleaning and maintenance expense. It is compact, light, (40 pounds), it can be handled by one man, and moved to any part of the plant. One horsepower GE Universal Motor mounted on Norma Ball Bearings. Specially designed fan produces tremendous cleaning power. 12 gallon steel tank. The motor unit can be removed and converted into a portable blower. Approved by Underwriters. Specify: 110, 220 or 250 volts, A.C. or D.C.

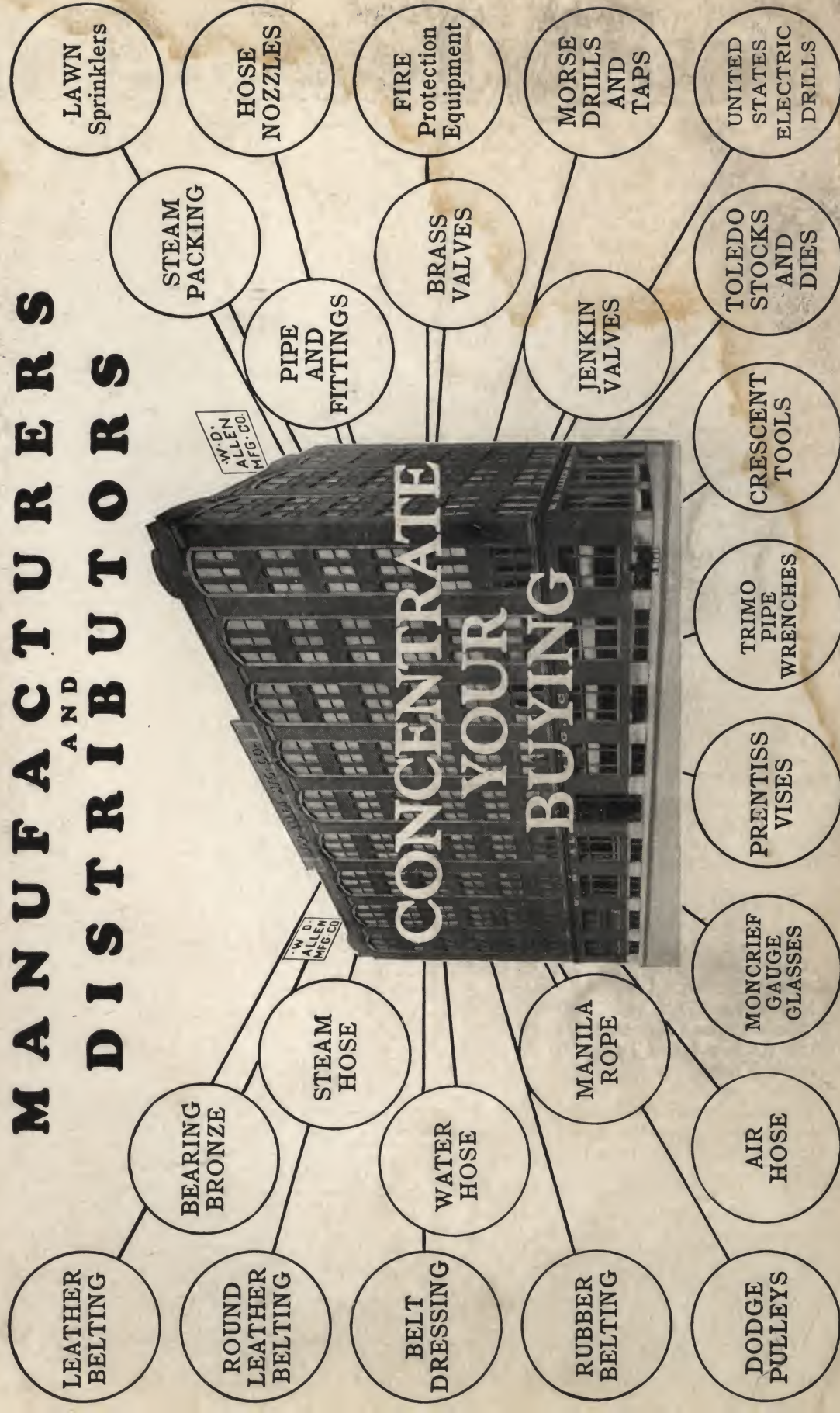
Complete with set of attachments to take care of every ordinary cleaning requirement.

★ NET COMPLETE, \$199.50



# W. D. ALLEN MANUFACTURING COMPANY

## MANUFACTURERS AND DISTRIBUTORS





# Quality Merchandise

Alenco Bearing Bronze  
Asbestos Pipe Covering  
B & D Electric Tools  
Barnes Hack Saw Blades  
Belt Lacing and Dressing  
Belting, All Kinds  
Brown & Sharpe Tools  
Buffers and Polishers  
Clamps, Hose  
Crescent Tools  
Drills, Electric  
Electrical Supplies  
Elevator Supplies  
Extinguishers, Fire  
Fire Hose  
Fire Protection Equipment  
Grease and Oil Cups  
Grinders, Electric  
Hammers, Axes, Etc.  
Hoists, Derricks  
Hose  
Ladders  
Lamps, Mazda  
Lawn Mowers  
Leather Belting  
Machinists Tools  
Morse Drills and Reamers  
Nicholson Files  
Packing  
Paint, All Kinds  
Paint Spray Equipment  
Pipe, Fittings, Valves  
Pumps  
Roofing and Supplies  
Rope, Wire and Manila  
Rubber Belting  
Rubber Specialties  
Sandpaper and Emery  
Cloth  
Screws, Nuts and Bolts  
Shovels and Spades  
Sprinklers and Accessories  
Starrett Precision Tools  
Steam Traps  
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United States Electrical  
Tools  
Well Drillers Supplies  
Wheels, Grinding, Etc.  
Wrenches

*An organization  
alert to meet your  
needs quickly and  
efficiently*

*a complete  
line of merchandise  
ready for immediate  
shipment*

*together with  
intelligent, speedy  
fulfilment of every  
order, large or small,  
deserves your business  
on sheer merit —*

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